ASTROLOGICAL CONSULTING IN THE AREA OF BUSINESS CONSULTING – An Empirical Investigation into the Applicability upon the Background of Systems Thinking

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Abstract

The starting point for this research study is the application of astrological consulting in the area of business consultancy. In many Western civilisations there is considerable prejudice regarding astrological consulting especially when it is active in the area of business consultancy. In contrast to this, astrological business consulting is encountered much more commonly in Asia and the USA, where it is not unusual that enterprises enquire for astrological consulting service. The research aims to investigate the applicability of astrological consulting in the domain of business counselling within a context of economic sociology. Management consulting has been used as a reference concept of business consultancy. The realm of systems thinking is considered to be suitable as the theoretical framework for this research. The systems methodology of the Networked Thinking approach of the interpretive tradition has been used to determine the systems of astrological business consulting as well as that of management consulting. This research proposes that, from a system-theoretical view or, let us say, from a technical-oriented perspective on management, astrological business consulting as compared with management consulting is not an applicable and justifiable consultancy concept in the area of business consulting.

The research methodology used aims to set up a direct confrontation between the system of astrological business consulting and that of management consulting. For this purpose the thesis has been broken down into five stages. In the first stage each of the two consulting concepts was theoretically developed as a hypothesis on the basis of a comprehensive review of the literature with the aim of determining its systems structure. In this stage of theory-building, an exploratory as well as a descriptive type of research was employed. By applying an exploratory research type, the author's intention is to look for ideas and patterns in order to construct the systems of reference as hypotheses. This research type has been supported to an even greater extent by a descriptive type to identify and classify the structure of each of the systems. Hence an inductive and a basic research approach are embedded in this first stage of the research process. The secondary data collection involves a mixture of qualitative and quantitative approaches. The knowledge acquired from this secondary data collection comes from multi-disciplinary but scientific sources. In the second stage of the research process the structure of each of the two systems derived from literature was statistically verified and modified where necessary. In the third stage, subsequent to the statistical verification, the two hypotheses were tested in practice. The primary data collection represents a deductive and a quantitative research approach mixed with qualitative components by using survey research as a suitable research method. The Delphi technique is regarded as appropriate to be employed as a data collection tool. Astrological and management consulting experts were contacted by a questionnaire procedure to achieve consensus with regard to the structure of each of these two consulting systems. Prior to this survey procedure, the questionnaires were subject to a pilot testing. The analysis of the findings from the primary data collection required modifications in each of the two consulting systems with regard to their systems structure. In stage four the two system models theoretically derived from the literature were compared with the empirical data. Subsequent to this comparison, in stage five, the two consulting systems empirically validated were confronted with each other by comparing their determinants.

Attestation

I understand the nature of plagiarism, and I am aware of the University's policy on this. I certify that this thesis reports original work by me during my University project.

Signature Date

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ASTROLOGICAL CONSULTING IN THE AREA OF BUSINESS CONSULTING

An Empirical Investigation into the Applicability upon the Background of Systems Thinking

Part I: Introduction of Concept and Theoretical Background

Chapter 1: Introduction

This chapter starts with a general overview of the thesis and its context. The opening section (1.1) explains the reasons why the author has conducted this investigation. The following section 1.2 presents the research question and the research derived from it. In section 1.3 the significance of the study is argued. Section 1.4 then concludes this chapter with an outline of the structure of this study.

1.1 Reasons for Conducting this Research Study

1.1.1 Areas of Concern

1.1.1.1 Management Consulting – Its Limitations

Recent reports indicate that the management consulting industry has become a dynamic and rapidly changing sector of professional services, for example with revenues of € 92 billion in Europe (FEACO[1], 2012). The reasons for this growth seem to be somewhat unclear. Some researchers suggest an impact of globalisation (e.g. Prahalad and Ramaswamy 2004; Law, 2009), along with increased market uncertainty and market pace, which leads to quests for external, specialised competences. Other studies argue that business life has become increasingly complex and in this increasing complex world managers cannot be experts in every area and/or have all the skills and information to complete every task which is to be performed. Because of this, managers need expertise and advice. This is underlined by the fact that management consulting activities often relate to innovative efforts, especially if the consultants represent academia.

Owing to its numerous forms management consulting is difficult to define. Kubr (1996, pp. 3–4), for example, presents two main types of definition. The first definition sees management consulting as a special service, where specific qualifications or skills and training are required to identify and analyse client problems and recommend solutions 'in an objective and independent manner'. The second definition is derived largely from humanistic and process consultancy traditions. It emphasises the practice of providing assistance towards organisational improvement in such a way that we can all be consultants in particular contexts, regardless of our main occupation.

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[1] FEACO: Fédération Européenne des Associations de Conseil en Organisation, Brussels, Belgium (European Federation of Management Consultancies Associations).

Providing assistance or giving advice to organisations through management consulting is closely related to the two terms ‘organisation development’ and ‘management’. The term organisation development, according to Beckhard’s interpretation (1969), which in certain respects might be worth noting even these days, can be understood as a planned effort to increase organisation effectiveness and health through planned interventions in the organisational 'processes' using the theory and technology of applied behavioural science knowledge. These activities are initiated and/or managed by the management of the organisation. The term ‘management’ lacks in systematic sociological understanding of management. In this regard, Reed (1989, p.1) views management within industrial capitalist societies in a threefold perspective and distinguishes between the technical, the political and the critical perspectives on management.

The technical perspective on management offers a conception of management as a rationally designed and operationalised tool for the realisation of values predominantly concerned with the systematic co-ordination of social action on a massive scale and the long-term continuity which this provides (Reed (1989, pp.2). This model of understanding focuses on the structural nature of management and hence relies on a systems approach to the study of organisations (Reed, 1989, pp.3). For Reed (1989, p.4), a means-oriented conception of management, concentrating on the structural mechanisms which ensure order and secure effective co-ordination and control over social interaction, encourages the formulation of an explanatory framework which treats organisations as social units which have to fulfil certain functional needs or imperatives imposed on them by their environment. The manner in which these functional imperatives are identified and classified may vary to some degree between individual exponents of the systems approach (Reed, 1989, p.4).

In contrast to the technical perspective on management outlined above, the political perspective on management however signifies for Reed (1989, p.6) a clear break with the rationalism associated with the technical perspective. Reed (1989, p.6) defines this perspective on management as a conception which promotes a view of management as a social process geared to the regulation of interest group conflict in an environment characterised by considerable uncertainty over the criteria through which effective organisation performance is assessed. For Reed (1989, p.6), the political perspective represents a shift of focus from structure to process.

The third perspective on management, the critical perspective, is about the conception of management as a control mechanism which functions to fulfil the economic imperatives imposed by a capitalist mode of production and to disseminate the ideological frameworks through which these structural realities can be obscured (Reed (1989, p.10).

For Reed (1989, p.150), none of these three perspectives can cope with the challenges posed to management by structural changes. He argues that in all three cases managers simply become the agents for functional imperatives originating outside the social practice in which they are routinely engaged (Reed, 1989, pp.15). To Reed (1989, p.19), the technical perspective on management focuses on the formal administrative structures through which managers attempt to co-ordinate organisational behaviour.

The political perspective highlights the social processes through which these structures are enacted, and the critical perspective emphasises the wider material interests to which the latter are subordinated. Reed (1989, p.19) concludes from these aspects that there is a lack of a general conceptual framework in which these important, but partial, insights can be integrated in a systematic and coherent fashion. Reed (1989, p.150) suggests the need for a substantial reconsideration by looking more carefully at the conceptual equipment through which we approach the theoretical, methodological and ideological issues which crystallise in the general theme of management.

Organisational performance is the result of a sum of factors from which the factor of human resources is regarded as the most important one (Sydow, 1985, pp.10). The theory of management does not offer generally valid conceptions or solutions to cope with this situation; it rather refers to a whole range of practical models and results of the experience of different organisations. Hence, classical consultancy concepts such as management consulting have reached their limits (Reed, 1989, p.176). The increasing accounts of failed consulting projects (e.g. Smith 2001; Pries and Stone 2004; Warren 2004; Appelbaum and Steed 2005) might give a reason to follow Reed's argumentation. According to Reed (1989, p.177), an answer to this situation is the development of perspectives which conceive alternative management consultancy concepts as a set of diverse and loosely interrelated social practices. Astrological business consulting might be one of these answers to that change. It offers consulting service both on the person and the course of action and may therefore be deemed to be an appropriate means of providing advice to management.

1.1.1.2 Astrological Business Consulting as an Alternative Consultancy Concept

At the beginning of the 20th century, astrology, which had fallen into oblivion, experienced an unusual revival in the United States and Western Europe, especially in Great Britain and Germany, beginning in the early 1980s and lasting until the late 1990s. Weinman (1982, pp. 275-287) calculated that there were approximately 10,000 full-time and 175,000 part-time astrologers in the USA. The German Astrologers Association (DAV – Deutscher Astrologenverband) estimates the number of active consulting astrologers in Germany at about 6,000 to 8,000 (full-time and part-time professionals)[2].

With appointments costing between GBP 20 and GBP 200, the increase of astrological consultations occurred mainly among the more affluent mid-30s-50s age range, and the growing use of computers supports such growth of predictions (Mitchell, 1995, p.48). Jonathan Cainer, for example, a British astrologer for the Today newspaper and Woman magazine, sends out 20,000-30,000 computerised horoscopes per year, at GBP 10 each, and the American-British astrologer Liz Green charges GBP 100 - 200 for a personal consultation, but provides a 20-page computer printout for only GBP 20 (Mitchell, 1995, p.48).

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[2] Homepage of the German Astrologers Association (deutscher astrologen-verband e.v.), section: Verband: Aufklärung der Öffentlichkeit (pdf-document), last updated: 2013: http://www.astrologenverband.de/verband.

Not only the average citizen, but also statesmen and companies utilise astrological knowledge. It is known, for example, that Ronald Reagan took astrological advice into account and that he factored in the results of this in his political decision-making process (Mitchell, 1995, p. 48).

In recent years, astrological business consulting has developed more and more into a branch of its own[3]. Its formation and establishment is being promoted especially in connection with the increasing competition among enterprises and the growing complexity of the decision-making process. Prompted by the introduction of newsletters such as 'Wall Street Astrologer, Astro-Cycles and Astro-Market', which give stock market predictions, companies are nowadays using astrology to evaluate business proposals to an ever greater extent (Mitchell, 1995, p.48), and that despite the fact that the question of its validity in science is currently being seriously discussed within the scientific community.

There is no strict definition of astrological counselling. On the one hand, the range of advice provided by astrologers is method-oriented, i. e. they offer so-called "radix counselling", "solar interpretations" or similar, and on the other hand, there is theme-oriented counselling such as partner advice, work consultations, parent/child advice and personality counselling. In all cases, the advice is based upon horoscopes, which are generated individually for each subject through different methods and techniques. Such a subject may be a person or an organisation. Pursuant to this description, astrological consulting might be conceived as a client and process-oriented consultancy concept. These properties of 'client and process orientation' also appear in Reed's (1989) conceptual approach towards the development of an alternative model of management (Reed, 1989, p. ix).

1.2 Research Question

1.2.1 Problem Statement

The problem can be classified by several aspects and might be addressed conceptually, empirically, in regard of consulting policies, and personally.

Conceptually, the problem is rooted in the relationship between traditional and alternative consultancy concepts. It addresses an area of particular interest for management studies (e.g. Herzberg, 1973; Knobil, 1989). While investigations on traditional consultancy concepts, such as that of management consulting, can be found relatively frequently in literature, the astrological counselling of enterprises as an alternative consultancy concept represents an area rather poorly researched within business management studies (Case&Phillipson, 2004, p. 473).

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[3] The consulting approach "Astrological Business Consulting" is especially common in Asia and the USA, but recently has been gaining interest also in Europe and Africa. Pöhlmann (2005, p.8) speaks of revenues of € 150m for astrological consultations in Germany in the year 2001.

Astrology seems to be very much taboo in the academic world. Up to now, neither the existing literature on business management has addressed business astrology, nor has the question been investigated as to whether astrological consulting is an applicable consultancy concept although some researchers consider this topic to be of importance (e.g. Herzberg, 1973; Knobil, 1989; Lannon, 1991; Mitchell&Haggett, 1997), and even within the corpus of scientific publications most academic efforts have only approached the subject from either a historical perspective (e.g. Campion, 1982; Tester, 1987; Curry, 1989; Stuckrad, 2005), the area of experimental psychology (e. g. Gauquelin, 1976; Dean et al., 1996), a sociological standpoint (e.g. Boy&Michelat, 1986; Bauer&Durant, 1997) or from the point of view of natural sciences (e.g. Eysenck&Nias, 1982; Kanitscheider, 1991; Thagard, 1998). If we look at the consultancy concepts from the political and critical perspectives (Reed, 1989, pp.6), then also alternative consulting concepts such as astrological counselling might be classified in the scope of those management consulting approaches which are recognised as being applicable consulting concepts in the area of business management.

A further issue of conception is to discuss astrology and how it conceives of consulting from the perspectives of epistemology and social sciences. When looking at the more recent developments in the Western philosophy of science, such as for example the change from objectivist to subjectivist ways of organising experience, then upon the basis of the oneness of man and nature an epistemological integration of astrology in Western philosophy appears to be possible.

In acknowledging astrological business consulting as a relatively young part of the global economic system (McKenna, 2006) which generates knowledge and findings such an investigation might be regarded as necessary and justified.

An empirical investigation of alternative consulting approaches such as that of astrological business consulting may contribute to richer statements regarding the application of alternative consultancy concepts in the economic sector. It will constitute a contribution to research in this area. Sperling&Ittermann (1998) describe the situation as follows: “Empirical findings on consulting processes by and in enterprises are largely patchy and thus provide only an incomplete operative image of astrological business consulting, of the different roles of the various actors in it, and the results and effects generated and caused by this form of consulting”.

In as far as consulting is concerned, from a practice point of view an additional value of this work is that the consulting process is examined in the context of alternative consulting and its components are described and defined with regard to their mutual impact and the effect upon the environment. Until now, there have been a series of prejudices concerning astrological business consulting. If we support Reed’s (1989, pp.6), political and/or critical perspective on management, there might be scope to locate astrological business consulting within the management consultancy landscape.

It is the author's personal motivation to gain more insight into the field of conflict between traditional and alternative consultancy concepts in the area of business consulting. As an inhouse consultant, who has been working in this area for years, his familiarity with this issue enables him to bring the empirical results in context and thus give the reader a further understanding of these questions. Nevertheless, also the author himself benefits from the findings on the complex social interactions in alternative management consulting. Such knowledge may be the basis for further individual development. The realisation of academic alongside professional activities personally appears very attractive since it facilitates the viewing of the object of investigation from a strongly practice-oriented perspective.

1.2.2 Formulation of the Research Question

The following area of concern arises from the problem statement, which is transferred into and formulated as the research question for this study:

> Can astrological consulting be identified as an applicable consulting approach in the area of business consulting?

The two consulting concepts, management consulting and astrological business consulting, might be represented as systems. To deal with the research question, a comparison of these two systems is to be applied. The body of management consulting will be employed as a system of reference with which the system of astrological business consulting is to be compared.

After the research question has been formulated and presented, the research aims will be derived from the research question and explained in the following section.

1.3 Research Aims

Against the background of the research question, the following research aims shall be derived from it and presented:

1. It is the aim of the study to develop a systemic understanding of management consulting and astrological consulting including considerations of quality and complexity.

   The study shall provide a holistic representation and/or explanation of these two consultancy concepts and contribute to the standardisation of terms, definitions and activities in management and astrological consulting, as employed in the area of business consulting, in order to promote a sector-wide standardised view of the systemic structure of traditional and alternative consultancy concepts. This standardised view especially provides an instrument for decision-making, if the question of the needs for a traditional or an alternative consultancy concept to solve business problems is taken into account.

In this context there arise questions such as what are the factors facilitating the systems of management consulting and astrological business consulting, or what are the key factors influencing the quality of these two consultancy systems and how should a consultancy concept be structured and designed in order to cope with complexity.

2. A further aim of this investigation is to provide a conceptual consultancy model suitable for application in the area of business consulting, both with regard to an alternative consultancy concept and a traditional consultancy concept.

3. Another aim of the study seeks to present an appropriate procedure enabling a comparison between consultancy concepts, irrespective of the sector they offer services of consulting.

After the research aims have been presented, the significance of the study will be explained in the following section.

1.4 Significance of the Study

This thesis presents a number of original contributions to research in management studies that underline the significance of the study.

First the research investigated an alternative consultancy concept, namely that of astrological consulting, in the domain of business consultancy. This comprised firstly a technically oriented interpretation of astrological consulting, secondly the formulation of a model of the astrological business consulting system, and thirdly a direct comparison of the astrological consultancy concept with that of management consulting, both being employed in the domain of business counselling; none of which have offered been offered in combination so far. The existing literature on business management has not yet addressed business astrology, although astrological business consulting has developed more and more into a branch of its own in the recent years. Some researchers consider the topic of importance (e.g. Herzberg, 1973; Knobil, 1989; Lannon, 1991; Mitchell&Haggett, 1997). Prior research typically only approached the subject either from a historical perspective, the point of view of natural sciences, or from a sociological perspective.

Secondly, a very substantial literature review was conducted with a view to incorporate it within the formulation of the models of management consulting and astrological business consulting. Thus far no holistic consulting model could be found which reflects the partially very fragmented literature in the area of business counselling. The research approaches are characterised by a more or less mono-causal view and hence provide isolated and individual reasons regarding what factors are determining for success (consulting quality) in the area of business counselling. The existing research approaches do likewise not consider the perspectives, interests and impacts of all the actors involved in the consulting system. The research works on the theory of management consulting reviewed within this investigation frequently deal only with the partial determinants of the management consulting system. The interdependences and changes resulting in the whole system from the modifications of individual factors have not been considered in research on management consulting thus far.

To the author's knowledge, this research gap has not yet been filled. This present work addresses this need for research. It is precisely the conception and development of the management consulting model of reference which allows a holistic view into the complex research object and conclusions regarding the structure of the management consulting system elements.

The third significant contribution in this thesis comprised the reference of astrological consulting to the philosophy of science resp. epistemology. The current investigation was carried out in the 'real world', with the involvement of experts, who nevertheless belonged to quite different social structures. While, in Western epistemology, one may recognise a social perspective characterised by the abandonment of traditional ideas, doctrines, and cultural values in favour of contemporary or radical values, it is important to acknowledge that Western aims at incorporating epistemology these values or at least, most of them, into the philosophical conception already existing in oriental philosophies and that astrology already offers as a set of attitudes towards these positive opportunities.

After presenting the significance of the study, in the following section, the structure of the work will be described.

1.5 Structure of this Document

The work is composed of eight chapters. The introduction chapter (Chapter 1) explains the resasons why this study has been conducted, presents the research question and the research aims derived from it, argues the significance of this research work and gives an overview on the structure of the investigation. The introduction chapter is followed by Chapter 2 presenting the theoretical frame for the research. Subsequently Chapter 3 explains the research procedure including the philosophy considered, the methodology and methods used. On the basis of a comprehensive review of the literature, in Chapters 4 and 5 the explanatory models are developed as hypotheses, the systems of management consulting and astrological business consulting, which form the object of this comparative investigation. In Chapter 6 the two consulting systems developed from secondary data are statistically verified. Subsequently in Chapter 7, these two systems are tested in practice. The results of this empirical validation are then analysed. Each of the two models theoretically developed is compared with its empirical data. Then in Chapter 8, based on the results obtained, the findings of that comparison are discussed. The research questions will be answered by comparing the system of astrological business consulting with the system of reference of management consulting. Also the contribution of this study to knowledge, the practical relevance and future possibilities of astrological consulting in the area of business consulting are the subject of further discussion.

In Chapter 1 the reasons for conducting this research are explained. Here, also the research question and the research aims derived from it are presented. The significance of the study is then argued and an overview is given over the structure of the work.

Chapter 2 discusses related works from the realms of systems thinking, management consulting and astrological consulting. The systems-oriented research approach is presented and a critical review is given with regard to the domain of systems thinking. Finally, the limitations of the research with regard to management consulting and astrological business consulting are stated.

Chapter 3 refers to the research procedure and presents the philosophical and methodological research approach as well as the research methods suitable for investigatingin the current study. The discussion on the validity and reliability of data, the limitations in terms of the research and ethical considerations are also a subject of this chapter.

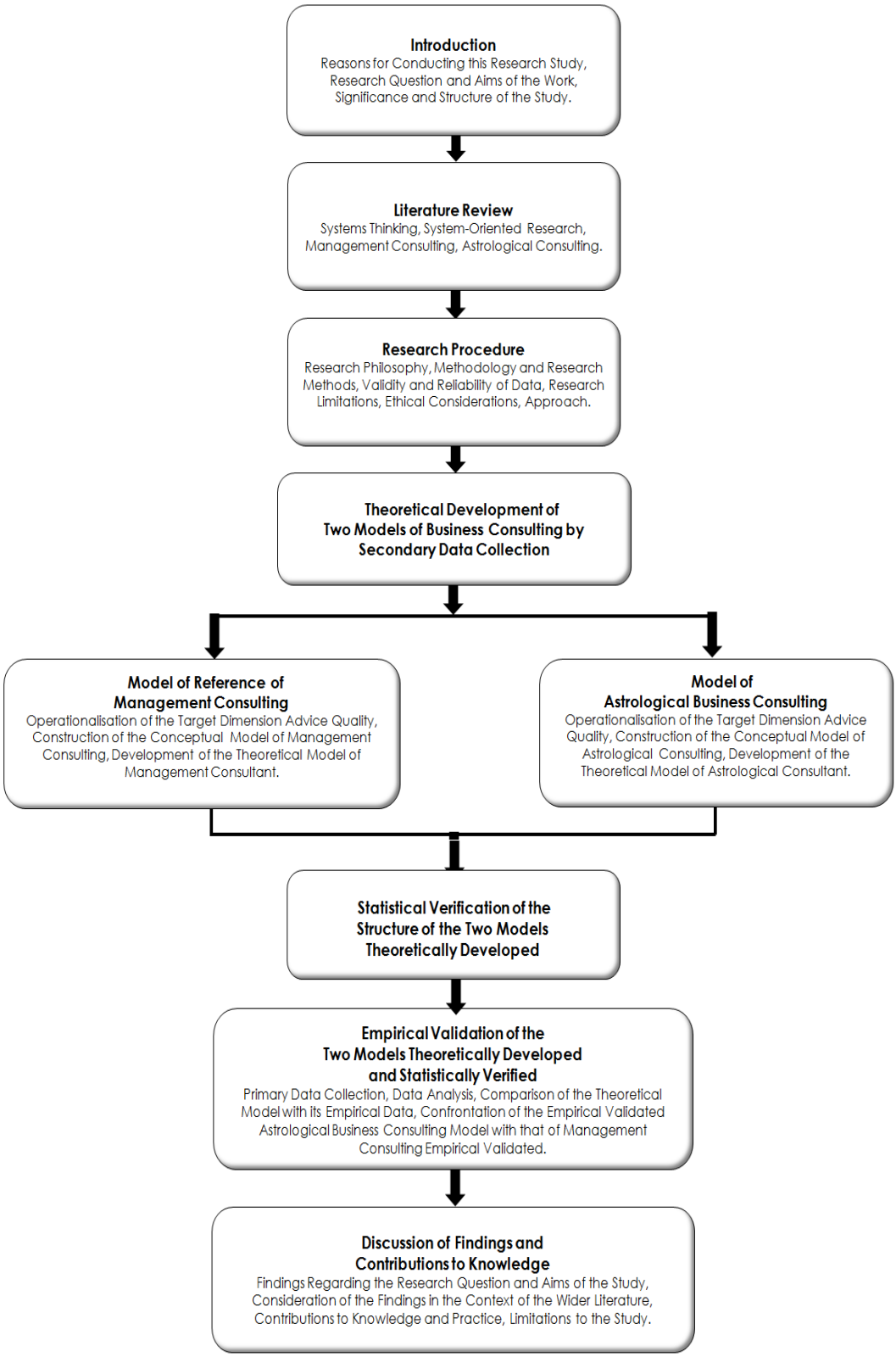
Chapters 4 and 5 focus on the conceptual development of the systems of management consulting and astrological business consulting. Before identifying and describing the two systems, the operationalisation of the consulting quality is needed to obtain a common denominator for the comparison of the two consultancy systems. Then the system elements of each of the two systems are identified based on secondary data. In order to reduce the complexity of each of the two systems, their total number of system elements will be reduced to that of the system-relevant key factors. Subsequent to the complexity reduction, it is to be found which system-relevant key factors are independent of or dependent on the behaviour of the other key factors within the system. As a result, the two hypothetical models, the systems of management consulting and astrological business consulting, are established, based on the independent system elements.

Chapter 6 proceeds with the statistical verification of the two hypothetical models in order to find out whether the premises from the two employed tools of the domain of systems thinking regarding the determination of the independent system elements can be sustained or whether corrections have to be made.

Subsequently in Chapter 7, the empirical validation of the two models theoretically developed will be carried out in practice. A comparison then takes place for each of the system models, that is between the theoretical data (derived from the literature) and the empirical data. After having compared the theoretical model with its empirical data, the two consulting systems validated by the practice are confronted with each other in order to find out whether their independent system elements (determinants) are congruent or largely identical. The findings will answer the research question.

Based on the results obtained, in Chapter 8 the findings with regard to the research question and the research aims are discussed. In this chapter, the contributions to knowledge and practice, the limitations of the study as well as the implications of the findings in the context of a wider literature are presented. Chapter 8 ends with a summary of the study. The structure of the work is schematically represented in the following Figure 1.

Figure 1: Schematic overview of the structure of the thesis.



Chapter 2: Literature Review

The subsequent statements shall provide an overview on the domain of systems thinking and the originated theories and methodological approaches resulting from it. In view of the system-oriented methodology used in this work, the networked thinking approach, which is represented by the two concepts, the Sensitivity Model (Sensitivitätsmodel Prof. Vester®) and the holistic problem-solving approach of Gomez&Probst (The Practice of Holistic Problem-Solving) dating from the 80s and 90s, the literature review is focused on these periods to a certain extent, but where appropriate and necessary, also new literature was considered.

2.1 Systems Thinking

The distinction between systems terms is not always easy or without ambiguity. In literature, systems thinking, systems approach and systems theory can be found, sometimes bearing not so clear meanings.

A definition of systems thinking which is often found is that of a term which encompasses thinking about, and in terms of, systems. This thinking can be either that of researchers, or that of other protagonists. Systems thinking can sometimes also be theorised on in such a way that it seems fair to attach the label "systems theory" to it. The term "systems thinking" is in this work treated as the general term. It denotes any somewhat 'organised' bodies of thought with aspirations to support interventions in, and/or research on, organised enterprises with an ambition to be 'holistic' in the sense of aiming for comprehensiveness.

Another term frequently used in the context of systems is that of "systems approach". This is considered to mean any approach intervene in, and/or conduct research on a given subject. Such approaches may or may not be informed by systems theory. Approach means the fundamental assumptions of the research or intervention effort. As will become evident in the subsequent section, several different systems approaches have developed over time, which are founded on different philosophical assumptions such as ontological and epistemological positions.

The term "systems approach" can also underlie more or less articulated systems methodology, although methodology should not be confused with method and needs to be related to approach. As Jackson (2000, p.11) states: "Methodology concerns itself with the study of the principles of method use, in the sense that it sets out to describe and question the methods that might be employed in some activity. Methodology is, therefore, a higher-order term than methods..." In the systems theoretical literature which I have studied, the term "systems methodology" appears to be regarded as equally closely related to systems approach; the former being somewhat more specified manifestations of the latter, whereas method is the concretisation of an intervention or research in terms of the tools, techniques, models etc. which are applied to conduct the research.

To summarise, the author has tried to use systems thinking as the general term, since the work focuses the thinking of, in, and about systems, be it that of theorists or practitioners. Sometimes systems theory will be used to denote theorising on systems thinking, as discussed above, or for that part theorising on systems approaches and/or systems methodologies. The term "systems approach" will be used to denote efforts to study or intervene in a systemic manner, whether informed or not by systems theory. Sometimes such approaches will be manifested in a way which will be labelled "systems methodology". Despite these intentions, some confusion of terms might nevertheless occur throughout this work.

2.1.1 Systems Philosophy

Systems philosophy as part of thinking in a systemic context reflects the question, "How can we understand systems?", and may be described as the study of the development of systems, with an emphasis on design and root cause analysis. With the perspective of systems philosophy, we look at the world in terms of facts and events, often in the context of wholes, and we understand them as integrated sets purposefully arranged in systemic relations. In contrast to the analytic, reductionist, linear, single cause-and-effect view of the philosophy of classical science, systems philosophy might bring forth a reorganisation of ways of thinking and knowing perceived reality, a view manifested in synthetic, expansionist, dynamic, and multiple/mutual causality modes of thinking and inquiring how things or systems work more than what systems are.

In the past decades different concepts of systems thinking have been developed regarding how best to approach the understanding of systems. In this context, systems thinking should not be understood as thinking about systems in terms of the objective fact of reality, but rather as mind's performance in terms of thinking in systems.

Jackson (2000) presents an extensive review of the field of applied systems thinking, in which roughly two dozen more or less distinct theoretical strands of systems thinking are identified. The result is about three generic systems approaches which have different philosophical positions with regard to ontology and epistemology and thus employ different methods, techniques, tools, and models. These are the functionalist, interpretive and emancipatory approaches.

The functionalist systems approach (often referred to as 'hard' systems thinking views reality as accessible by, and independent of, an outside observer. Systems are regarded as real, objective aspects of that reality, existing in their own right. The methodologies of this approach were the first to become established, and the approach is also the one which has gained the widest influence. Reputable schools belonging to it are early Operations Research (OR), Organic Cybernetics, Mechanistic Cybernetics, General Systems Theory (as far as systems approach identified, less as interdisciplinary field of principles, rules, guideline), Systems Analysis, Systems Engineering, System Dynamics, Living Systems Theory, and Autopoiesis.

The interpretive systems approach (often referred to as 'soft' systems thinking), developed in the 70's and 80's as a response to the dominant 'hard' systems approach, lies mainly in the objective-subjective dimension. Whereas the functionalist approach, with its objectivist nature, disregards such aspects as for example values and beliefs, the interpretive approach for its part is regarded as subjectivist, and asserts that there can be multiple, conflicting perceptions of reality. Systems are thus not considered to be something which can be objectively accessed, but only by understanding subjective intentions. Systems models are thus not so much models of reality as models useful for debate about reality. With regard to reputed schools, these are fewer and less distinguishable than with regard to the 'hard' systems thinking approach. Jackson (2000) identifies Churchman (1968, 1979) as one central scholar, and names his approach Social Systems Design, an approach which was a response to OR becoming too functionalist in nature. This point of view was shared by Ackoff (1970, 1974), who promoted Social Systems Sciences and Interactive Planning. Another important school within this approach is Soft Systems Methodology (SSM) by Checkland (1981) and Checkland & Scholes (1990), often regarded as synonymous with soft systems thinking, and Strategic Options Development and Analysis (SODA), developed by Ackerman & Eden (2001).

During the 1980s and 1990s, a number of theorists and practitioners became dissatisfied with the methodologies used in both the 'hard' and 'soft' systems approach unreflectively as a technical instrument or as a vehicle to promote debate, without reference to whose interests might be served by the intervention (Jackson, 2000, p.292). The main criticism towards the approaches of both systems was thus that these were seen as not paying enough attention to who is affected, and in what way, by the systems designs produced by the intervention. Such positions are regarded as regulative in the sense that these maintain the status quo with regard to inequalities. As a response to that situation the Emancipatory systems approach developed. Jackson (2000, p. 291) describes this approach as "...suspicious of the current social order and seek(ing) to radically reform it." With regard to ontology and epistemology, as well as methods usage, it is similar to the interpretive approach. Reputed schools are the Interpretive Systemology (Fuenmayor, 1991 and Fuenmayor & López-Garay, 1991), Team Syntegrity (Beer, 1994) and Critical Systems Heuristics (CSH) by Ulrich (1983, 1987).

Figure 2: An overview of systems approaches (types) and their philosophical origins (adapted from Reynolds, 2011, pp.38-39).

Systems Approach ('Type')	Philosophical Perspective (Origin*)
The Functionalist Systems Approach (Hard Systems Thinking)	
Ontology:	Realism
Epistemology:	Positivism
Intention:	Control
The Interpretive Systems Approach (Soft Systems Thinking)	
Ontology:	Nominalism
Epistemology:	Constructivist Interpretivism
Intention:	Appreciation
The Emancipatory Systems Approach (Critical Systems Thinking)	
Ontology:	Nominalism
Epistemology	Constructivist Critical idealism
Intention:	Emancipation

* Glossary of Terminology	
Ontology	(assumptions about the nature of 'things' or 'being').
Realism:	'real world' is made up of systems.
Nominalism:	systems are means of re-presenting (naming) phenomena of the real world.
Epistemology	(assumptions of knowledge generation).
Positivism:	validity based on 'objective' scientific method of gathering empirical facts.
Constructivism:	knowledge is socially constructed.
Interpretivism:	validity based upon 'subjective' interpretations (multiple realities) of phenomena.
Critical idealism:	phenomena (maps), as distinct from noumena (objects), are imbued with human for critical reflection, purpose and must lay open their perspective and purpose
Intention	(primary pledge or human purpose embodied in systems approach).
Control:	enables technical mastery over natural and social entities.
Appreciation:	enables furthering communication and understanding between different groups.
Emancipation:	enables freedom from coercive material and ideological forces.

2.1.2 Systems Theory

The movement of systems thinking has many roots and facets, with some of its concepts going back as far as ancient Greece. What we call 'systems thinking' today materialised in the first half of the twentieth century. By and by systems thinking ground for various systems theories.

During the Second World War the 'systems idea' acquired more and more reputation as an operational tool. Two major directions of thought of systems thinking emerged from it, Operational Research and Cybernetics. Operational Research has developed as a pragmatic approach to handling military strategic decision-making and is often considered to be a sub-field of mathematics, a discipline which deals with the application of advanced analytical methods to help make better decisions. Cybernetics sought to apply systems thinking in terms of controlling and steering living organisms by analogising the living with physical systems, this against the background of the variety of possible disturbances. Norbert Wiener (1948) can be named as its most famous representative. He is often identified as its founder.

In the 1950s endeavours then increased to unify the different theories and approaches of systems thinking in order to be able to explain all systems in all fields of science. With his studies, the biologist Ludwig von Bertalanffy (1940, 1945, 1950) basically contributed to the accumulation of an uniform systems theory, also known as ‚General Systems Theory (GST)'. General Systems Theory is commonly understood as the interdisciplinary study of systems aiming to elucidate principles which can be applied to all types of systems in all fields of research. The questions in this context are for example: what can be identified as the structure, properties, and characteristics of a system, how systems interact and affect each other and/or the environment, and/or how systems, in turn, are affected by the environment.

A number of roots can be identified along the evolution of GST. They are in particular:

- Mathematics,
- Biology,
- Engineering; and
- Social and human sciences, including economics.

Figure 3: A Sample of Systems Theories with their Philosophical References (adapted from Reynolds, 2011, pp.38-39).

Systems Approach ('Type') & Philosophical Origins		**Selected Systems Theories / Methodologies**
The Functionalist Systems Approach (Hard Systems Thinking)		
Ontology:	realism	• general systems theory (e.g., Bertalanffy, Boulding, Klir, Simon, Rapoport)
Epistemology:	positivism	• classical 'mechanistic' cybernetics (e.g. Wiener, Ashby)
Intention:	control	• operations research (e.g. Churchman, Ackoff & Arnoff) • systems engineering (e.g. Hall) • socio-technical systems (e.g. Trist) • RAND-systems analysis (e.g. Optner) • system dynamics (e.g. Forrester, Meadows, Senge, Vester, Gomez, Probst) • organic cybernetics (e.g. von Foerster, Beer, Luhmann, Varela)
The Interpretive Systems Approach (Soft Systems Thinking)		
Ontology:	nominalism	• inquiring systems design (e.g. Churchman)
Epistemology:	constructivist interpretivism	• soft systems methodology (e.g. Checkland) • strategic assumption surface testing (e.g. Mason & Mitroff)
Intention:	appreciation	• interactive management (e.g. Ackoff) • cognitive mapping and strategic options development (e.g. Eden & Ackermann)
The Emancipatory Systems Approach (Critical Systems Thinking)		
Ontology:	nominalism	• critical systems heuristics (e.g. Ulrich)
Epistemology:	constructivist critical idealism	• system of systems methodologies (e.g. Jackson & Keys) • community operational research (e.g. Rosenhead)
Intention:	emancipation	• liberating systems theory (e.g. Flood) • interpretive systemology (e.g. Fuenmayor) • total systems intervention (e.g. Jackson & Flood) • systemic intervention (e.g. Midgley)

2.1.3 Systems Methodology

Most fundamental concepts of systems thinking were developed in the early 20th century in disciplines such as organismic biology, ecology, psychology and cybernetics (Mingers&White, 2010). As a set of methods, models, tools and techniques to solve and analyze complex system problems under the direction of some basic philosophy, systems thinking was derived from the field of systems theory, which was developed from general system theory (Bertalanffy, 1950; Boulding, 1956), established by the biologist Bertananffy. In last several decades, a large range of knowledge related to systems thinking has been widely applied in various disciplines. For a comprehensive overview of the domain of systems thinking, the author relates to Jackson (2000).

Generally speaking, according to whether the problem which is to be solved by the systems approach seems to be soft or hard, systems methodology is usually classified into a 'hard' (quantitative) and 'soft' (qualitative) systems methodology position. Hard systems approaches and methodologies were originally developed for well-defined (hard) systems, especially for technical and/or engineering systems (such as OR methods, Cybernetics, Systems Analysis, Systems Dynamics). When dealing with problems which reflect a more unstructured picture (e.g. social systems, organisation systems), systems thinkers employ 'soft' methods rather than 'hard' methods. These 'soft' methods are summarised under the label of soft systems methodologies.

With regard to the *philosophical perspective* on systems thinking, systems methodology can be identified in two main streams - the positivist tradition and the interpretivist tradition.

The positivist tradition is labelled by those methodological approaches which focus on the generation of "positive knowledge," that is, knowledge based on "positively" ascertained facts. Interpretivist tradition is denoted by those methodological approaches which emphasise the importance of subjective interpretations of phenomena (this tradition goes back to the Greek art and science of the interpretation and understanding of texts).

Some of the systems methodologies are rooted in the positivist tradition, others in the interpretivist tradition. The differences between the two traditions might be described along a set of polarities:

- The objectivist versus the subjectivist position;
- The conceptual–instrumental versus the communicational /cultural / political rationality;
- The inclination to quantitative versus qualitative modelling; and
- The structuralist versus the discursive orientation.

The positivistic methodological position tends to be objectivistic, conceptual–instrumental, quantitative, and structuralist–functionalist in its approach, whereas the interpretive position emphasises the subjectivist, communicational, cultural, political, ethical, and aesthetic: the qualitative, and the discursive aspects.

In the following, a sample of systems methodologies will be characterised and positioned with regard to the two traditions mentioned above:

(1) The Positivist tradition - a selection of systems methodologies:

• "Hard" Operations Research methods. Operations research (OR) methodology uses a wide variety of mathematical and statistical methods and techniques, for example of optimisation, queuing, dynamic programming, graph theory, time series analysis, to provide solutions for organisational problems, mainly in the domains of operations, such as production and logistics, and finance.

• Living Systems Theory. In his Living Systems Theory (LST), J. G. Miller (1978) identifies a set of 20 necessary components that can be discerned in living systems of any kind. These structural features are specified on the basis of a great empirical study and proposed as the "critical subsystems" which "make up a living system." LST has been used as a device for diagnosis and design in the domains of engineering and the social sciences.

• Viable System Model. Stafford Beer's Viable System Model (VSM) specifies a set of control functions and their interrelationships as the sufficient conditions for the viability of any human or social system (cf. Beer, 1972,1981). These are applicable in a recursive mode, for example, to the different levels of an organisation. The VSM has been widely applied in the diagnostic mode but also to support the design of all kinds of social systems. Specific methodologies have been developed for these purposes, for instance for use in consultancy.

(2) The Interpretivist tradition - a selection of systems methodologies:

• Interactive Planning. Interactive Planning (IP) is a methodology designed by Russell Ackoff (1981) for the purpose of dealing with "messes" and enabling protagonists to design their desired futures, as well as bring them about. It is grounded in theoretical work on purposeful systems, reverts to the principles of continuous, participative, and holistic planning, and centres on the idea of an "idealised design."

• Soft Systems Methodology. Soft Systems Methodology (SSM) was designed by Peter Checkland (1981). It might be attributed to the detailed development of methodological procedures for addressing complex human-based problem situations. Checkland suggests an iterative learning cycle with seven stages of enquiry, although he himself more recently describes it in terms of two parallel streams of enquiry, the 'logic-based stream of analysis' and the 'stream of cultural analysis',

• Networked Thinking. The methodology of Networked Thinking was mainly promoted by Frederic Vester (1980, 2003). This methodical approach, with reference to bio-cybernetics, views the system as a network of its interrelated properties: influencing variables of the system can be illustrated and assessed. For this purpose, Vester developed the Sensitivity Model (Sensitivitätsmodells Prof. Vester®) in the 1980s. This network thinking approach was then developed further by Gomez&Probst in the 1990s with reference to the concept of a holistic thinking and problem-solving. In this context Gomez&Probst (1999, 2004) distinguish between system's variables that are influenceable and those not.

• Critical Systems Heuristics. The Critical Systems Heuristics (CSH) methodology has been proposed by Werner Ulrich (1996) for the purpose of scientifically informing planning and design in order to lead to an improvement in the human condition. The process aims at uncovering the interests which the system under study serves. The legitimacy and expertise of protagonists and particularly the impact of decisions and behaviour of the system on others – the "affected" – are elicited by means of a set of boundary questions.

Having given an overview on the domain of systems thinking, including its philosophical approach and the various theories and methodologies evolving from it, the subsequent statement shall refer to the system-oriented research approach.

2.2 System-Oriented Research

2.2.1 System-Oriented Modelling

In the introduction the author mentioned as an objective of the study the development of a systemic understanding of management consulting and astrological consulting including considerations of quality and complexity. In this respect modelling is considered to be the basis and pre-condition for the achievement of that objective.

Fisch&Beck (2004) focussed on the investigation of complex problems. Their works centred on the "development of complex technical systems" (Fisch&Beck, 2004, p.58). They recommend "networked thinking" or "holistic problem-solving" as adequate procedures for the examination of complex systems.

From the above-mentioned approaches the author develops an approach which methodologically shall be used as system-oriented modelling.

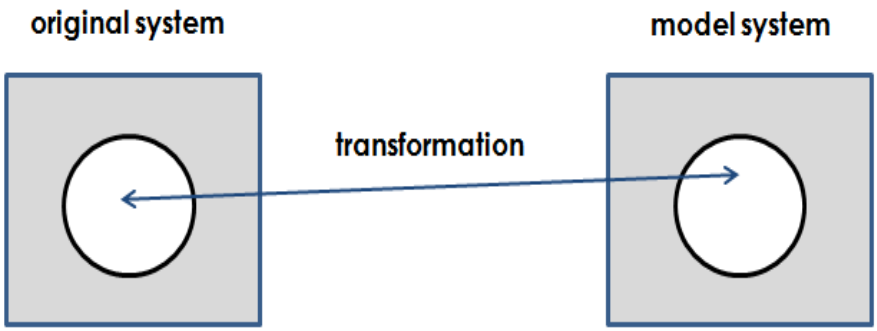
2.2.1.1 Models

Stachowiak (1973, p.219) defines models as 5-tuples: "X is a model of the original Y for the user k in the time span t with respect to an intention Z". Stachowiak (1973) claims that models should always satisfy the criteria of representation, abbreviation and pragmatism. Transformation refers to the mapping of attributes of the original to attributes of the model (see Figure 4 below). During this mapping, usually not all attributes of the original are mapped to attributes of the model following the principle of abbreviation. The principle of pragmatism establishes the reference to a subject, i.e. models are transformations of originals for a model user.

The term "model" compasses both a representative and a formative element. Models can serve to represent, map or reproduce a section of reality or formulate a design or ideal for a section of reality. In social sciences, two notions of models have developed: transformation-oriented and construction-oriented models. Transformation-oriented model definitions are supported by a number of authors[4], citing originally mostly Kosiol (1964) and Grochla (1974).

Kosiol (1964, p.321) understands a model as an "adequate representation of a considered reality". Statements regarding the content of the real system and regarding the objectives of the model development are, if present, frequently undifferentiated. Models can only serve as images or representations of reality if the transformation at least partly preserves the structure of the original (Kosiol, 1964, pp.321).

Figure 4: Transformation-oriented models
(source: adapted from Stachowiak (1973, p.157).



In business economics, models always bear reference to reality. This is distinct from Stachowiak's model theory (Stachowiak, 1973), in which the original does not necessarily have to be a section of reality. Models are understood as representations of originals the quality of which is measured by the degree of syntactical congruence with the original. Ferstl&Sinz (2006, pp.12) define models as 3-tuples of object system, model system and transformation. For the transformation-oriented perception of models, the following definition based on Buhr&Klaus (1975) can serve as a basis:

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[4] Schütte, 1998, pp. 46, who lists a number of authors who adopted a trans-formation-oriented model definition.

- **Definition 1:** Model (transformation-oriented)

A model is a consciously created mapping of reality by using a certain language at a given time, which, based on a structural, functional, or behavioural similarity to a respective original, is used by a subject to solve a specific task. This task cannot or not immediately be solved by conducting operations directly with the original since given restrictions render these operations impossible or inappropriate.

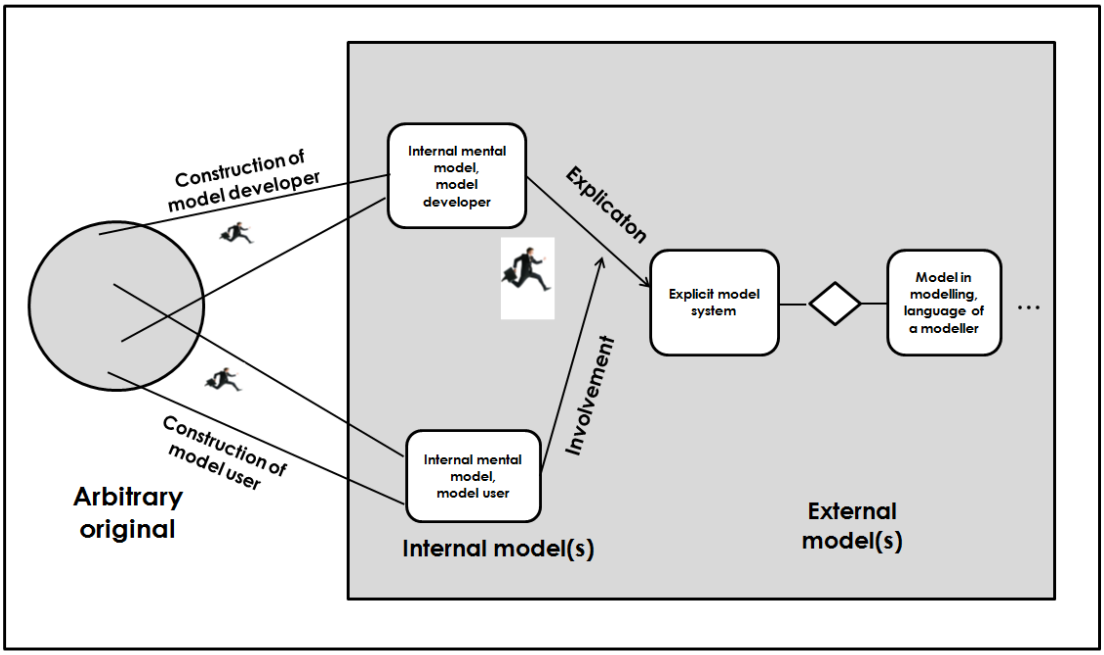
These shortcomings of the transformation-oriented notion of models have been recognised in construction-oriented perceptions of models. First and foremost, the problem definition moves to the centre of the construction of models, i.e. modelling is no longer understood as a mere transformation and reproduction of a real system; rather, a model comes into existence only via the cognition of a subject. As Bretzke (1980, pp.33) postulates, there are only problems which come into existence due to a subject-object-relationship and thus, there is no objective cognition of reality. The homomorphous transformation is replaced with the construction of a problem. The model developer is central to this perception of models since the simple transformation of the original is replaced with a creative and independent design act. The difference between these two notions has been characterised by Bretzke (1980, p.vii): "Models of something (an original) and models for something (an objective)".

- **Definition 2:** Model (construction-oriented)

A model is the outcome of the construction of a modeller who declares a representation of an original as relevant for model users at a given time in a given language (Schütte, 1998, p.59).

This definition involves the aspects of construction of models by modellers, model users, originals, time and language. The relationship between these elements is presented in Figure 5: The construction of the model developer leads to an internal model. The explicit model is the outcome of the modelling process. The model user is the person for whom the model is created. The model users employ the model to solve a specific task. Both model developer and model users are subjects, i.e. an individual, but can also be groups of individuals. The original can represent any given problem which needs to be modelled. Time is of crucial importance to indicate when the model was constructed and for how long it is intended to be valid. All models with a reference to the current situation will be of limited validity since environmental parameters will change over time. Finally, a language is needed for model construction. Artificial language systems serve to describe the model content.

Figure 5: Construction-oriented models
(source: adopted from Schütte (1998, p. 61).



Although the transformation-oriented perception of models is still the most commonly used definition in management research, its definition of model is not adapted to the purposes of this thesis. In the transformation-oriented perspective, the creation of models can be seen as a passive-receptive act from observation. However, as frequently seen from modelling practice, a modeller A might achieve a different result from a modeller B depending on previous knowledge[5]. Thus, not the formal-descriptive act but the active cognitive act should be in the centre of the definition. This can be exemplified when looking at the process of hierarchisation. As Schütte&Rotthowe (1998, p.243) note: "... in an information systems modelling project the question of how to derive the hierarchical decomposition is not answered through observations but through constructional activities." Schütte's construction-oriented definition of model (Schütte, 1998) is thus adopted here.

This definition will provide the basis for the definition of the system models of management consulting and astrological business consulting.

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[5] This was empirically shown by Shanks (1997).

2.2.1.2 Modelling Requirements

In the previous section the author explained that modelling may be a means to render a system assessable in respect of a determined problem within a complex issue. The concrete realisation of these as yet theoretical claims is now to be clarified: what are the categories these problems may be divided into and how may an adequate system and subsequently an adequate model be made thereof?

Dörner (2003) provides a step-by-step description of complex problems in their entirety. Dörner (2003, p.59) describes their properties (complexity, lack of transparency, dynamism, degree of networking and incompleteness or incorrectness of knowledge regarding the respective system; i. e. the general features of the situations of action when dealing with such systems) and highlights possible errors in working with and solving them. His suggestions concerning the modelling phase are very comprehensive and useful. For this reason, the modelling procedures discussed below shall be investigated in accordance with the requirements profile by Dörner (2003).

2.2.1.3 Qualitative and Quantitative Modelling

The basis of any graphic modelling process is to represent the system structure. Such graphs are designated as 'interactions' (Vester, 2003, p.209), 'interaction graph' (Bossel, 2004, p.65) or 'network' (Gomez&Probst, 2004, p.78). Their mathematical basis is graph theory. They consist of the conversion of elements to knots and the effects of communication channels to edges of the interaction graph. Since the forms of representation in the literature differ slightly, the explanation uses the author's own symbols.

Effects are represented as arrows, continuous lines meaning effects in the same, dashed lines in the opposite direction. Using a fictitious example, this means:

Effect from A to B (see Figure 6 below):

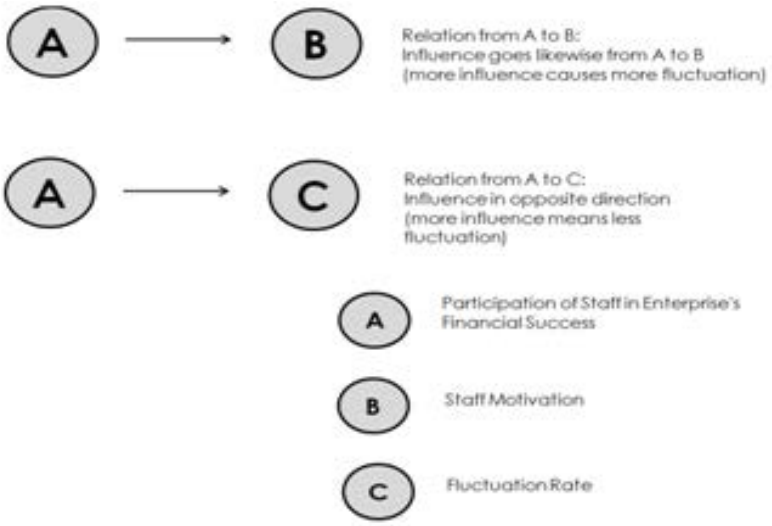
> The greater the consultant's participation
> in the success of the consulting project,
> the higher the consultant's motivation.

Effect from A to C (see Figure 6 below):

> The greater the consultant's participation
> in the success of the consulting project,
> the lower the fluctuation rate.

If there are effects in both directions, we speak of feedbacks. Negative feedbacks represent a stabilising trend (attenuation), positive ones a destabilising trend (amplification).

Figure 6: 'Influences' in an Interaction Network (source: own depiction).



The compensatory effect caused by opposite interactions of negative feedbacks and the increasing or decreasing swing-out effects of positive feedbacks may be easily understood. Vester (2003, S. 212) notes that in the case of positive feedbacks, they may also take a drift-apart effect, i. e. they do not increase or decrease at the same time. In 'qualitative modelling' the elements are connected through 'effect arrows'. This, though, does not reproduce the connections among the elements in a mathematical form. Within the scope of the work, the statements required may be obtained through 'qualitative modelling'.

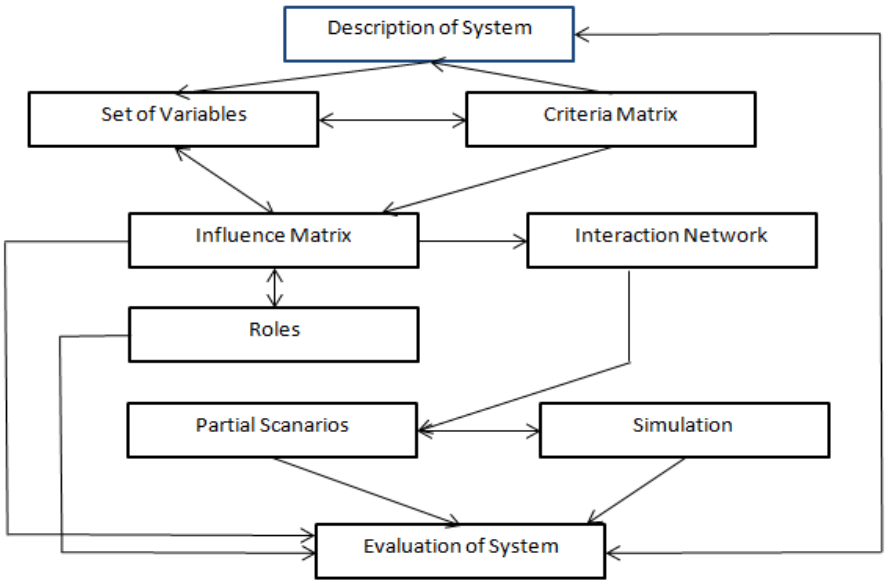
When dealing with other problems, however, it may be necessary to show the interrelations in a quantitative way. Thus in the case of a simulation of climatic developments, a purely qualitative network is inadequate. Also models to represent topics in water management are unable to provide a quantitative ascertainment of the best possible results. A given criterion 'amount of precipitation' must be included in its statistical distribution and transferred in a mathematical form which can be further processed in order to be integrated into a model. All the examples stated may be supported by interaction graphs. In order to represent the interdependences of criteria data must be gathered and adequately fitted into models. Subsequently, systems theory procedures must be employed such as 'system dynamics' by Jay Forrester (1961) or the 'Sensitivitätsmodell Prof. Vester®' (sensitivity model) by Vester (1980).

2.2.1.4 Sensitivity Model

The molecular biologist, biochemist and environmental expert Frederik Vester steadily developed further his 'sensitivity analysis' (1980) in over 25 years of work, and he continued to do so right up to his death in 2003. In the following the author shall reproduce and briefly describe the entire model in an overview. The author shall then have a closer look at the 'Sensitivitätsmodell Prof. Vester®' (henceforth referred to as 'sensitivity model'), which will be systematically used by the author.

Figure 7 shows the rough flow diagram of the computer programme 'sensitivity model' by Vester. Analogue to networked thinking, also the digital realisation is marked by possibly required recurrent 'backward steps' and adaptations (considered in the programme) of steps already carried out (recursive structure).

Figure 7: Procedure " Sensitivitätsmodell Prof. Vester®" (sensitivity model), according to Vester (2000, p.169).



Actually, Vester calls the elements of the interactions which have not been further subdivided not 'elements' but 'variables'. The author accepts this terminology for this present chapter.

According to Vester (2000, p.179), a system may be roughly reproduced with a limited number of superordinate terms. These may then be further detailed, thereby representing another system level; it may also contain data, information or opinions. As an introductory step, a moderated brainstorming is carried out with a sampling of all involved disciplines or stakeholders which is as representative as possible.

This still relatively unstructured collection of data will then be consolidated in a second step in order to provide significant findings. Vester (2000, p.179) designates the describing terms as the 'set of variables' and recommends their limitation to not more than 20 to 40. The afore-mentioned observation of levels is now realised consequently. The variables are differentiated in a 'description of variables' and explained more in detail as far as necessary. All variables are then registered in a 'list of variables'. The variables are valuated, since they can be used only in the form of an effect analysis. 'To valuate' in this context means that the variables must be qualitatively, not neutrally, formulated. Thus, for example, the variable 'client' may be registered as 'client satisfaction'.

Then the variables are examined as to their balance and completeness, following an established criteria catalogue. This step is documented in a 'criteria matrix'. The variables must be comprehensively covered and considered in a balanced way (as expressed in the sum of valuation points). Vester (2000) classifies the criteria given for his procedure in vital areas (economy, population, land use, human ecology, natural balance, infrastructure, communities), physical criteria (matter, energy, information), dynamic categories (flow variable, structure variable, time dynamics, space dynamics) and system relations (output system opening, input system opening, influenceable from within, influenceable from without).

In the 'sensitivity model', the selection of criteria applies to all problems. Certainly, the criteria for the partial matrix cover an ample range of problems. Nonetheless, it should be critically examined whether the required general validity should not rather be abandoned in favour of a project-specific adaptation. It is the author's opinion that for some enterprise-related problems, these criteria are appropriate only to a limited extent. In Chapters 4 and 5 the author shall elaborate a specific criteria catalogue for the problem investigated in this work. In it the author shall consider Vester's suggestions and parts of his approach.

Figure 8: Criteria Matrix according to Vester (2000), general description (source: own depiction).

Legend:

fully met (1.0 valuation points)

partially met (0.5 valuation points)

	criteria 1	criteria 2	criteria xx
variable 1	●	●	●
variable 2	○	○	●
variable yy		●	
sum	1.5	2.5	2.0

Figure 9: Influence Matrix according to Vester (2000), general description (source: own depiction).

impact of ↓ upon →	1	2	3	4	5	active sum (AS)	AS x PS
variable 1	0	0	2	1	1	**4**	**20**
variable 2	2	0	3	0	0	**5**	**15**
variable 3	0	1	0	0	0	**1**	**5**
variable 4	0	2	0	0	3	**5**	**5**
variable 5	3	0	0	0	0	**3**	**12**
passive sum (PS)	**5**	**3**	**5**	**1**	**4**		
(AS/PS) x 100	**80**	**167**	**20**	**500**	**75**		

The variables are quantitatively assessed in an influence matrix as to their mutual effects on one another. These effects are added horizontally as active sums (AS) and vertically as passive sums (PS). Then for each variable two indexes (the product resp. quotient times 100) are derived from the AS and PS. Through these indices they are then assigned the properties active, critical, buffering and reactive (upon registration in the 'roles' matrix). This method helps to reveal the interactions of the system variables with each other and with the environment. The result is a so-called interaction network of the system variables. For the evaluation of influence matrixes see the presentation of the procedure by Gomez&Probst (1999, 2004).

The author has already presented the structure of the interaction networks. Partial scenarios serve the detailed analyses of section of the entire system. Vester (2000. S. 229) uses 'fuzzy logic' for his simulations: "In this, it seems important to us to differ from the conventional way of simulation of presentations, which conceals its algorithm behind mathematical functions and differential equations so that no-one is able to trace the thoughts behind. Ultimately, conventional simulations are always black boxes. With the help of fuzzy logic they may at least be converted from 'black boxes' into 'grey boxes'".

The system is evaluated observing the 'basic rules of bio-cybernetics'. As was the case with the criteria in the criteria matrix, also these 'basic rules' are employed in all 'sensitivity analyses'. And as with the criteria matrix, the author is of the opinion that it makes sense to adapt it project-specifically. The author shall not observe the basic bio-cybernetic rules in the investigation. Instead, the author shall use the viable system model (Beer, 1972,1981) for guidance and the observation of cybernetic principles.

In its entirety, the 'sensitivity model' is feasible mostly only for very large problems (and only with software support). The 'sensitivity model' fulfils the entire requirements profile for modelling according to Dörner (2003).

The 'sensitivity model' describes

- a procedure to structure the problem (system description, set of variables, criteria matrix),
- a qualitative effect analysis including its evaluation (influence matrix, roles),
- a quantitative effect analysis (mathematically supported by fuzzy logic approaches), and
- a simulation including the assessment based on traceable indicators (basic rules of bio-cybernetics).

In his system-oriented modelling, the author adopts essential concepts (criteria matrix, influence matrix plus evaluation, qualitative interaction network) and adapts them in respect of the specific subject-matter of this work, the comparison of the two consulting concepts with each other.

2.2.1.5 Networked Thinking

In "Die Praxis des ganzheitlichen Problemlösens" (The Practice of Holistic Problem-Solving – Gomez&Probst, 1999, 2004), Gomez and Probst describe a procedure which they divide into the process fields "think in networks", "act like an entrepreneur" and "convince personally". Within the scope, the author shall not further discuss the field "convince personally", and regarding the "act like an entrepreneur" field, the author shall only explain the element "develop and simulate scenarios".

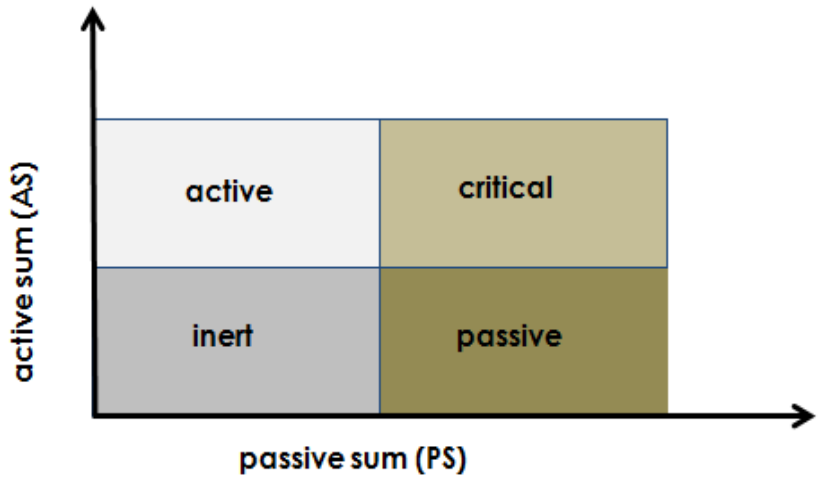
In the further course of the investigation, the author shall use methodologically relevant parts for the elaboration of the interactions of the management consulting and astrological consulting systems.

Gomez&Probst (1999, 2004) describe the 'network' structure in a very vivid manner. Their starting point is the observation of the problem from different perspectives. One of these perspectives, and the elements forming a part of it, constitute the centre of their investigation. Based on this circuit, they gradually complete the other perspectives and their necessary elements.

The criteria are grouped by means of "target indicators", that is problem-solving indicators, as well as "controllable" and "non-controllable" factors. Additionally, they identify the time component of a development (time elapsing until the effect is produced) directly within the interaction network. Any increase of effect is registered in the "network" as a value on the connecting arrow or in an influence matrix.

Subsequently they assess these factors with reference to the sums in the columns and lines of the influence matrix in respect of their active, critical, inert (not buffering as in Vester, 2000) and reactive properties, in a bi-dimensional coordinate system (see Figure 10 below).

Figure 10: Evaluation of Influence Matrix According to Gomez&Probst (source: Gomez&Probst (1999).



Gomez&Probst (2004, pp.88) provide hints regarding the meaning of the sub-classifications 'active, reactive, critical and inert':

- active factors: They strongly influence the other factors, but are they themselves only little influenced. These factors are absolutely adequate as measures to control the system as they exert the strongest leverage and multiplying effects.

- critical factors: They also have a strong influence, but are also strongly influenced themselves. Also these factors may be used to influence the system but they have the disadvantage that they may cause chain reactions.

- passive factors: These factors only have a weak influence and are strongly influenced by other factors. Therefore these factors are hardly adequate to influence the system, but suit very well as indicators to assess the development of problem situations.

- inert factors: These factors neither influence others nor are they themselves strongly influenced by them. These factors may be largely neglected in the assessment of possible problem situations since they contribute very little to the system dynamics.

In a similar way to the criteria matrix, also in evaluating the influence matrix slight differences cen be observed between the approaches by Gomez&Probst (1999, 2004) and Vester (1980, 2003).

Gomez&Probst (2004) realise the assignment directly based upon the column and line sums. In addition, Vester (2003) uses them also to calculate influence indexes and assesses the criteria in respect of these indices. Furthermore, Gomez&Probst (2004, pp.89) see influence matrixes rather sceptically: "The usefulness of influence matrixes is of an ambiguous nature".

The 'interaction network' is a means to design possible developments or solutions ('develop and simulate scenarios'). In this, Vester (1980, 2003) and Gomez&Probst (1999, 2004) propose two ways. For one part, 'mental simulation and paper scenarios', for the other part, 'computer-aided simulation models' (e. g. based upon the system dynamics approach). Among the latter they include both qualitative and quantitative software, while Gomez&Probst (2004, p.134) think that in the vast majority of cases it is enough to work with paper scenarios and mental simulations.

Like the 'sensitivity model', also the 'problem-solving procedure' by Gomez&Probst (1999, 2004) fulfils the entire requirements profile for modelling according to Dörner (2003). When comparing the procedures by Vester (2003) and Gomez&Probst (2004) in respect of systems-oriented modelling (which is only a part of the 'practice of holistic problem-solving'), they both evidence comparable processes.

Gomez&Probst's systems-oriented modelling (1999, 2004) describes a procedure to structure the problem (deduction of key factors, criteria matrix) and an effect analysis of the system's elements (influence matrix). It shall therefore serve as the methodological basis for this investigation.

2.2.1.6 System-Oriented Modelling Process

Relevant parts of the procedures by Vester (1980, 2003) and Gomez&Probst (1999, 2004) are integrated in the systems-oriented modelling (Chapters 4 and 5).

The author shall develop a specific criteria catalogue for the systems' comparison and carry out a validation in respect of balance and completeness of the elements used, based on it. It shall elaborate and evaluate an influence matrix for each consulting system. Also modelling according to Dörner's (2003) requirements profile shall be observed.

2.2.1.7 Qualitative Systems Thinking: A Critical Review

As briefly mentioned in Section 2.1.3, most fundamental concepts of systems thinking were developed in the early 20th century in disciplines such as organismic biology, ecology, psychology and cybernetics (Mingers&White, 2010). In the last few decades many researchers have expressed what systems thinking is and how systems thinking works.

Ackoff (1993), for example, regarded the basic philosophy of systems thinking as doing the right thing, and established four consequences of thinking about social systems by classifying systemic thinking into three types: the mechanical, the organismic, and the social approach of thinking.

In his book 'Systems Approaches to Management', Jackson (2000) presents four systems approaches which have different positions with regard to ontology and epistemology, and thus employ different methods, techniques, tools and models. He distinguishes between the functionalist, the interpretive, the emancipatory and the postmodern approaches. Later, based on Boulding's (1956) taxonomy of systems (by complexity), Jackson (2009) identified three directions of systemic thinking applied in management: the functionalist, the structuralist and the interpretive approach.

If in addition we consider the four foundations of systems methodology (holistic thinking, operational thinking, systems theories and interactive design) (Gharajedaghi, 2006), the five learning disciplines (personal mastery, mental models, shared vision, team learning and systems thinking) (Senge, 1990), the thirty systems thinking laws (e.g. synergy, gradual process, life-cycle thinking, solution exploration) (Frank, 2000) and the seven critical skills of systems thinking (dynamic, closed-loop, generic, structural, operational, continuum and scientific) (Richmond, 1993), then the complexity of the structure of systems thinking becomes obvious.

From the author's view, generally speaking, systems thinking might be understood as a response to the failure of mechanistic thinking in the attempt to explain social and biological phenomena.

With a view to the development of systems thinking, it might be pointed out that it was the demand for substantive concepts and methodological tools for organisational and societal problems which led to a first shift from General Systems Thinking (GST) as a basic science working on an abstract level to Applied Systems Thinking (AST) around the middle of the last century. With that shift, systems thinking was transferred into a positivist epistemological framework by developing theories such as System Engineering, Operation Research, System Analysis, which could deal with complex problems of engineering and technology in the field of contemporary management science. Checkland defined this kind of AST as Hard Systems Thinking (Checkland, 1981). Hard Systems Thinking in social science can be characterised by a positivist epistemology in which the systems being examined assume the status of real world (Reynolds, 2011). Methodologies of the Hard Systems Thinking tradition were developed with a view to being goal-oriented in the solution of structured problems, where well-defined objectives and constraints exist. The Hard Systems Thinking tradition might be characterised by the following sample of principles:

(1) The real world can be determined from a systemic perspective.
(2) Complex situations and problems can be best approached and understood by using the modelling process.
(3) Quantitative analysis is seen as the preferred methodology of data analysis.

The transfer of Hard System Thinking to Soft System Thinking can be indicated as the second shift. Methodologies of the Soft Systems Thinking tradition were used in the absence of a concrete definition of ill-structured problems. Such problems exist mainly in connection with various kinds of social systems and cannot be forced into a pre-determined structure. The 'success' of Soft System Thinking might be attributed to the detailed development of methodological procedures for addressing complex human-based problem situations. The concept of 'purposeful holon' leads to the revolution of systems thinking, and it becomes an important label to distinguish the stance of 'soft' and 'hard' in systems thinking. This second shift brought three contributions for systems practice. The first contribution is that of employing phenomenology as its philosophy base to inquire into the real world. The second contribution is about renewing the meaning of 'system', which is transferred from an objective concept to a subjective concept. The third contribution can be seen in developing new research methods aiming to comprehend and improve the social situations of human activities. In this context, Soft System Thinking was related to the sociological paradigm which has become an important source of Soft System Thinking. The Soft Systems Thinking tradition might be characterised by the following sample of principles:

(1) The world is not inevitably systemic.
(2) Complex situations and problems can be creatively designed.
(3) Qualitative analysis is seen as a suitable methodology of data analysis.
    Quantitative analysis is seen as a dependent tool which cannot provide useful help.

The difference of philosophy and social paradigms embedded in the Hard Systems Thinking and Soft Systems Thinking traditions provides the third shift of systems thinking. The deviation of the social paradigm from functionalism to the interpretive attitude for dealing with human affairs leads to this third shift. The functionalists criticise Soft Systems Thinking as being too subjective and idealistic as well as ignoring the existence of objective characteristics of social systems, such as the organisational structure, culture, political power. Radical theorists criticise that Soft Systems Thinking ignores social facts in real organisation, such as the asymmetry of power, structural conflict and contradiction. For such reasons they see Soft Systems Thinking as hardly able to deal with human activity system only by interpretive paradigm. This kind of philosophical attitude of extreme subjectivism places Soft Systems Thinking far away from objective analysis. In general, most of the criticisms of Soft Systems Thinking can be ascribed to the philosophical attitude of extreme subjectivism.

It is the author's opinion that the Networked Thinking approach by Vester (1980, 2003) and Gomez&Probst (1999,2004) as a representative methodology of the interpretive tradition is appropriate for determining a consulting concept in the context of a social system where human activities can be observed.

2.2.2 Summary and Conclusions for the Investigation

In the previous sections the author established the theoretical fundament and the basis for the comprehension of the subject-matter of this work.

Based upon the research question elaborated in Section 1.2, in Chapter 2 the author gave an overview on the domain of system thinking and the various theories and methodologies evolving from it and presented the theoretical background for conducting the system-oriented research. Relevant problems in complex systems are not objectively given, but must rather be researched. The approach of systems thinking allows a holistic and networked view on a problem or structure. In the author's opinion its theories and the methodologies provide render it especially suitable to process the research.

In the further course of Chapter 2, the author depicted and explained the systems-oriented modelling approach. For the investigation it is important to bring about transparency regarding the complexity of the management consulting and astrological consulting systems; that was done in Section 2.2. Only transparency regarding the structure of both consulting systems makes the identification of their independent and dependent system elements possible. The independent system elements do not, or only little, change over time. Therefore the system may be described through these independent elements at different points in time. The explanations in Section 2.2 are meant to provide the theoretical understanding for this.

To be able to identify and describe the two consultancy concepts, two methodical procedures from systems-oriented management theory are chosen: On the one hand the sensitivity model, as developed by Vester (1980, 2003). It shall be used to establish the system elements, that is the structure of the system-determining key factors of the consulting systems. In order to achieve the transparency of the system with regard to the influence of the system elements among each other and to reduce the system's complexity, the author shall subsequently generate a "network" of system-determining elements on a holistic basis. This "network" or "interaction network" will then provide information as to the kind and intensity of the interactions of these system elements and ultimately reveal their respective roles within the system. By means of their roles it may subsequently be determined whether the respective system elements act independently of the influence behaviour of the other system elements. A system can be identified or described by means of its independent elements. The mathematical basis for the generation of a "network" is the graph theory. The procedure is based on the systems-oriented approach by Gomez&Probst ("networked thinking"), a holistic system-oriented approach to establish transparency in systems, actually a further development of the sensitivity model approach by Vester (1980, 2003). Through this kind of modelling it is possible to show the system structure of both consulting concepts in a transparent and comprehensive manner. Since both Vester and Gomez&Probst visualise the role typology of the system elements in the scatter diagram more or less arbitrarily by dividing the diagram into equal halves or quadrants, the author shall statistically verify the role structures of the elements belonging to the two systems in a separate chapter (Chapter 6). Then the findings have to be transferred into operational solutions suitable for application in consulting practice. Both the systems-oriented procedure by Vester (1980, 2003) and Gomez&Probst (1999, 2004) are approaches inspired by the domain of systems thinking; they are not mathematical systems-theoretical derivations.

2.3 Management Consulting

2.3.1 Meaning and Development

Management consulting activities have evolved in Europe over the last decades (FEACO 2012)[6]. The main reason might be that business life has become increasingly complex. In this increasingly complex world managers cannot be experts in every area and/or have all the skills and information to complete every task which is to be performed. Because of this managers need expertise and advice.

The figures of the FEACO survey 2012 (Table 1) show that the revenues of Management Consulting amounted to 92.4 billion Euros and reached a level double that of 2002.

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[6] FEACO: Fédération Européenne des Associations de Conseil en Organisation, Brussels, Belgium (European Federation of Management Consultancies Associations).

Table 1: The European market size of management consultancy (source: Survey of the European Management Consultancy, published by the FEACO in 2012).

	2008	2009	2010	2011
Market size	€ 86.7 bn	€ 83.7 bn	€ 86.2 bn	€ 92.4 bn
Growth rate	8.2%	-5%	2.9%	6.6%

Table 2: The European market size of management consultancy by country and by region (source: FEACO, 2012).

Total turnover in billion €	2009	2010	2011
Germany	25.8	27.9	29.6
United Kingdom	18.8	19	20*
Spain	9.6	9.9	9.9
France	7.7	8.1	8.6
Western Europe	12.5	11.6	13.8
Nordic Region	7.2	6.8	7.7
Central&Eastern Europe	2.1	2	2.9

* Estimation

Western Europe: Austria, Belgium, Ireland, Italy, Netherlands, Portugal, Switzerland

Central & Eastern Europe: Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republik, Greece, Hungary, Poland, Romania, Slovenia, Latvia, Macedonia

Nordic Region : Denmark, Finland, Norway, Sweden

The origins of institutionalised management consulting are generally located in the second half of the 19th century (Meissner&Thürbach, 1989, p.107). The increasing progress in knowledge in natural sciences and technology during the 19th century initially led to "advice services" in agriculture, then the most important economic sector. Towards the end of the 19th century increasingly enterprise advisors may be increasingly found who provide technical knowledge, thus responding to the growing industrialisation in the production of goods. Companies exclusively dedicated to counselling enterprises first appear at the beginning of the 20th century (Alms, 1999, p.80). The following Table 3 provides an overview of the milestones in the development of the management consulting sector.

Table 3: Chronological representation of important consulting developments (following Schwan&Seipel 1999, pp.12).

Year	Author / Founder	Heading / Subject
1532	Machiavelli, N.	Il principe
1886	Little, A.D.	Foundation of the analytic test lab
1895	Taylor, F.W.	A piece rate system
1909	Little, A.D.	Foundation of Arthur D. Little Consultancy
1911	Taylor, F.W.	The principles of scientific management
1911	Gilbreth, F.B.	Motion study
1912	Gilbreth, F.B.	Foundation of consulting firm
1914	Booz, E.	Foundation of business research services
1925	McKinsey, J.O.	Foundation of consulting firm
1939	Drucker, P.F.	The end of economic man
1949	Wiener, R.	Cybernetics
1950	Bower, M.	McKinsey Executing Director initiates expansion
1954	Drucker, P.F.	The practise of management
1957	Argyris, C.	Personality and organisation
1958	Kepner, C. / Tregoe, B.B.	Foundation of consulting firm
1959	Herzberg, F. / Mausner, B. / Snyderman, B.	The motivation to work
1960	McGregor, D.	The human side of enterprise
1960	Maslow, A. H.	Motivation and personality
1963		Foundation of Boston Consulting Group
1964	Blake, R.R. / Mouton, J.S.	The managerial grid
1965		Inauguration of the first two business schools in GB

The first independent consulting firms had their origins in the U.S.[7] while in Europe business consulting and predominantly technical consulting initially developed completely separately from each other.

In Europe the end of World War II marked the beginning of a feverish growth in the consulting sector. By the mid 1950s the major U.S. companies also began to enter the European market to an increasing extent.

From the beginning of the 1960s hardly any differences can be seen in the development of management consulting between the Anglo-American region and continental Europe. The impulses coming from the U.S. resulted in an assimilation of the different consulting cultures.

The growing complexity and dynamics of economic developments in the 1970s finally led to a heightened demand for consulting services in the area of strategic planning. Simultaneously the greater use of computers triggered a boom of specialised consulting services in the IT sector.

The following Table 4 shows the foci of consultancy within the different development phases of management consulting.

Table 4: The phases of development of management consulting - following Hafner&Reineke (1988, p.5).

Development stage	Consulting priority	Orientation
foundation around 1900-1920	technical operative consulting revision trust fonding	operative management operative processes
fonsolidation around 1920 - 1940	rationalisation organisation purchasing	costs
supply expansion around 1940 - 1960	production finances operations research	production sales
internationalisation / diversification around 1960 - 1970	organisational development personnel development enterprise strategy leadership	market clients
polarisation / demand expansion around 1970 - 1980	technology enterprise strategy organisation culture	management technology
specialisation / concentration / Increaded Inhouse Consulting around 1980 - 1990	technology enterprise strategy organisation culture	management technology

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[7] For an overview see Dichtl (1998, p.29).

In the preceding section an overview on the development of management consulting was given. In the subsequent explanation (2.3.2) an outline of what is understood under the term 'Management Consulting' shall be presented.

2.3.2 The Term "Management Consulting"

The search for a generally accepted definition of management consulting is also difficult because in the European region (except Austria) the term "management consultant" does not stand for a protected professional designation. Anyone working in advising companies may call him/herself a management consultant (Steyrer, 1991, p.8). As a result the title Management Consultant hosts a heterogeneous crowd of more or less expert people in very different areas (Krebs, 1980, pp.54; Elfgen, 1988, p.15). It is therefore hardly surprising that thus far no generally accepted definition of management consulting has emerged (Kakabadse&Louchart, 2006, p.419). Since most of the scientific definitions are imprecise and mutually inconsistent, the author has developed a referential definition for this work, based on the existing approaches.

The existing literature on management consulting provides a pick-and-mix of different approaches, developed partly in practice and partly by theory (Kraus,&Mohe, 2007, p.263). Likewise, the boundaries between management consulting and other "customer-related" practices such as mentoring, counselling or coaching seem to be unclear. The following Table 5 offers an overview of some of the definitions to be found in literature concerning management consulting.

Table 5: Collection of definitions regarding the term 'management consulting' (source: own depiction).

Year	Author	Definition
1977 (p.36)	KLEIN	"Being a real consultant means just that someone who solves problems for others and then leaves. When an engagement ends, a consultant does not return to a job he previously held. He is soon off, tackling another consulting assignment. He works at his profession full time."
1980 (pp.55)	KREBS	"Conceives management consultants as an enterprise-external group of persons seeking to support the management of the enterprises to be advised in the solution of complex ample problems in providing information of the most varying kinds."
1981 (pp.56, 63)	LUTZ	"In consequence, consultancies [...] are those legally independent, lastingly conceived institutions which produce consulting exclusively as a market performance, pursuant to the principle of specific remuneration and free of third-party instructions." "Consulting is a social intervention procedure seeking problem-solving within the intervention area by means of information transfer between the adviser and the advised."
1982 (p.7)	SZYPERSKI / KLAILE	"Business management consulting: "individually shaped support provided by external persons in identifying and solving business problems withing the occurrences of enterprises."
1983 (p.7)	GREINER & METZGER	"Management consulting is an advisory service contracted for and provided to organisations by specially trained and qualified persons who assist, in an objective and independent manner, the client organisation to identify management problems, analyse such problems, recommend solutions to these problems, and help, when requested, in the implementation of solutions."
1987 (p.478)	MUGLER / LAMPE	"Management consulting is a service marked by externality, independence and professionalism. Its performance content is the processing of business problems through the identification of those problems, support in solving them and the recommendation of measures and assistance in the realisation of solution concepts."
1987 (p.31)	ELFGEN / KLAILE	"Management consulting denotes the indivisually shaped support provided by external persons in identifying and solving business problems withing the occurrences of enterprises, based on a holistic problem perspective and marked by autonomy. The generation of a problem solution occurs within an interactive process."
1988 (pp.1, 101)	STUTZ	"Management consulting, [...] denotes an interactive process between a consultant (system) and a client system, oriented toward influencing the client system's behaviour in the solution of management problems. As a service, consulting is offered in the market by external, independent instances on an individual, problem-oriented and voluntary basis." "This kind of consulting is often referred to as management consulting, management consulting in a stricter sense, or classical resp. integrated management consulting."
1991 (p.40)	HOFFMANN	"Management consulting denotes a service supplied individually and under market conditions to a client organisation, by an independent, autonomous, professional consultant, focusing on generating - in an interactive process - together with the client, a solution concept for a complex business problem and, upon request, also assist in its implementation."
1991 (p.219)	HOFMANN	"Management consulting is [...] a professional, remunerated service, in which a person temporarily, and independent of the client system, assumes voluntary responsibility for achieving a target agreed on together with the client and in this enjoys the power and sanction awareness aqdequate for such purpose [...] In brief, one could say that management consulting is temporary management without assuming the implementation responsibility, based on an intensive interaction and information process."

Year	Author	Definition
1993 (pp.8)	STRASSER	"Henceforth, management consulting shall be the support in the achievement of business tasks." STRASSER further claims that: "this description requires specifying the business term. Here we understand business administration as the teaching comprising both the procedural research results relevant for enterprises as social buildings and the formal findings of research." STRASSER states a list of characteristics defining management consulting: 1. independence and qualification 2. holistic perspective 3. supplied for renumeration 4. individual performance 5. within a contact-intensive interactive process 6. for the achievement of the client's business tasks .
1993 (p.13)	Berry & Oakley	Business consultancy is about acquiring and sharing knowledge.
1996 (p.12)	WEIERSHÄUSER	"Management consulting is a professional service supplied by external, independent persons for remuneration and mandate-tailored in the form of projects. Service performance is carried out as a problem-oriented, interactive process together with the client enterpise's staff. Service scope ranges from the problem identification and analysis to the development problem solutions and the implementation and realisation of such problems. Service content consist of the increase in efficiency of the client enterprise's economic, social, political or general management capacity."
1998 (p.16)	EFFENBERGER	"Management consulting is a service provided by an enterpise and aims to develop recommendations of action, explain and possibly implement them, which are suitable to solve problems existent and aware in the enterprise to be advised."
1998 (p.20)	DICHTL	"Management consulting denotes a service provoded by qualified and neutral persons for advice-seekers which to the extent possbile should be mandate-tailored. It may range from problem identification to problem solution, and frequently on to the implementation of recommendations. The performance is provided excusivley in an autonomous and renumerated way and within an interactive process. It aims to eliminate the weaknesses determined within the business area and increase the advised enterprise's market opportunities."
1999 (p.30)	KÖPPEN	"Consultancies are generally renumerated services individually supplied by an external, independent and professional consultant (system) for client enterprises, fosusing on the generation of a holistic solution concept for complex business problems, in an interactive process jointly with the client (system)."
1999 (p.81)	NEUMANN	"Management consulting is a service comprising the analysis and solution of business problems, which may include the planning or realisation of problem solutions. Service performance is provided by client-external, financially, spatially and organisatorily independent persons. Management consulting is mandate-tailored. It assumes a holistic perspective, which departing from individual symptoms analyses the client enterprise's entire situation and subsequently reaches a recommendation which is adequate for the entire enterprise. The problem-solving generation occurs within an interactive process during which the management consultant establishes personal contact with his/her/its client and its staff. The reference group belongs to an organisation's executive level."
2000 (p.170)	WOHLGEMUTH	"Management consulting is a project-oriented interaction process among the persons of a client system and a consultant system. The consultant system is independent, provides professional support and enjoys a holistic problem view, in order to optimise the client system's success potential."
2000 (p.17)	KOHR	"A professional and individual service provided by independent external consultants in a interactive process with the client, comprising the identification, analysis and solution of the client's business problems as well as the implementation of the solutions recommended."
2004 (p.1)	NIEDEREICHHOLZ	"Management consulting is defined as a higher personal service supplied by one ore more independent and qualified persons. It comprises the identification, definition and analysis of problems regarding the client enterprise's culture, strategies, organisation, processes, procedures and methods. It aims to generate, plan and implement problem solutions (target concepts) in that enterprise. In this, the consultant contributes with his/her cross-branch experience and expert knowledge."
	IMC (Institute of Management Consultancy)	Management consultancy is the service provided to business, public or other undertakings by an independent and qualified person or persons in identifying and investigating problems concerned with policy, organisation, procedures and methods, recommending appropiate action and helping to implement those recommendations.
	MCA (The Management Consultancies Association)	The rendering of independent advice and assistance about management issues. This typically includes identifying and investigating problems and/or opportunities, recommending appropiate action and helping to implement those recommendations.

In the following, based on the essential management consulting properties as contained in the definitions listed above in Table 5, the author shall develop a generally applicable definition which is as unequivocal as possible. From the said definitions stated, the following were identified as the essential determinants of management consulting:

- independency
- externality
- professionalism
- services of consultants:
  - problem-solving
  - proposition of solutions
  - implementation
- time limit
- interactive process

Table 6 below represents the frequency at which the authors consider the above-mentioned characteristics (determinants) in their respective definitions. The characteristics have been listed in chronological order, thus allowing for the recognition of trends. As for the symbols used in Table 6, the following shall apply[8]:

Yes: Elements directly named by the author.
No: Elements not specifically mentioned by the author
Yes/No: Elements not necessarily forming part of consulting.

Table 6: Analysis of the most relevant determinants of management consulting, ordered according to authors (own depiction).

	Independency	Externality	Service	Professionalism	Problem Solving	Implementation	Time Limit	Interactice Process
Klein	yes	yes	no	yes	yes	no	no	no
Krebs	no	yes	no	no	yes	no	no	no
Lutz	yes	yes	no	no	yes	no	no	no
Szyperski / Klaile	yes	yes	no	no	yes	no	no	no
Greiner / Metzger	yes	yes	yes	no	yes	yes / no	no	no
Mugler / Lampe	yes	yes	yes	yes	yes	yes	no	no
Elfgen / Klaile	yes	yes	no	no	yes	no	no	yes
Stutz	yes	yes	yes	no	yes	no	no	yes
Hoffmann	yes	no	yes	yes	yes	yes / no	no	yes
Hofmann	yes	yes	yes	yes	no	no	yes	yes
Strasser	yes	yes	no	no	yes	no	no	yes
Berry & Oakley	yes	yes	no	yes	yes	no	no	yes
Effenberger	no	no	yes	no	yes	yes / no	no	no
Weiershäuser	yes	yes	yes	yes	yes	yes	yes	yes
Dichtl	yes	no	yes	no	yes	yes / no	no	yes
Köppen	yes	yes	yes	yes	yes	no	no	yes
Neumann	yes	yes	no	no	yes	yes / no	no	yes
IMC	yes	yes	yes	yes	yes	yes / no	no	yes
Wohlgemuth	yes	no	no	yes	no	no	yes	yes
Kohr	yes	yes	yes	yes	yes	yes	no	yes
Niedereichholz	yes	no	yes	no	yes	yes	no	no

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[8] A “yes” does not necessarily mean something positive, nor does a “no” necessarily refer to something negative.

In the following, the characteristics of management consulting shall be analysed:

- Independency: This characteristic is named by almost all authors. The consultant must always be an independent person, otherwise good consulting becomes impossible.

- Externality: There is less agreement as to whether a consultant must be external. Are inhouse consultants a part of management consulting? (Kubr, 2002, p.46). From Table 6 it might be concluded that only external consultants are management consultants. In the opinion of the author of this work, externality is not absolutely necessary. Inhouse consulting can be as independent as external consulting and an inhouse consultant has more in-depth knowledge of his/her company. In the industry, we find several examples of internal independent consultants. Large corporations with high consulting costs frequently choose to establish an inhouse consulting department. In this respect the author may name Royal Dutch Shell, BASF, BP, GlaxoSmithKline, Volkswagen, Porsche and Siemens as examples.

- Service: Since the 1980s management consulting has been considered to be a service.

- Professionalism: Equally, an analysis of the definitions in Table 5 does not provide a unambiguous answer: about half of the authors mention professionalism, an - in some way - legally regulated activity (Kubr, 2002, pp. 132). According to Kubr (2002, pp.131-133), management consulting does not fulfil all general criteria of professionalism[9]. Some consultants' associations[10] have begun issuing non-binding consultant certificates. Only in Austria (Steyrer, 1991, p.8) is "Management Consultant" a protected professional title.

- Problem-solving: Almost all authors mention problem-solving as a consultant's core activity. There is less consensus on whether a consultant should also carry out the implementation of the solutions developed. Some authors believe that consulting activities end with the presentation of the problem-solving plan. In that case the client alone is responsible for its implementation. However, other authors consider implementation to be an integral part of the consulting activities. This author tends towards that second opinion. It is up to both the client and the consultant to decide whether implementation should be an object of the project. Both contract parties, client and consultant, are free to stipulate their agreed preference when drawing up contractual obligations.

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[9] They are: 1. The necessary theoretical and practical knowledge, 2. Social interest, 3. The existence of generally recognised ethical rules, 4. Both the consultant and the client acknowledge ethical rules, social interest and legal protection, 5. Self-discipline and self-control.

[10] For example, the European FEACO (Europe, Fédération Europeénne des Associations de Consultants en Organisation).

- Time Limit: Only Hofmann, Wohlgemuth and Weiershäuser mention this characteristic (see above Table 5). Consulting is always performed within a project. Every project has its own targets which are subject to limitations in resources, time and others. Thus, also this characteristic must be considered and agreed upon within the context of consulting.

- Interactive Process: Since the end of the 1980s authors have explicitly mentioned interactivity between the client and the consultant as a characteristic of management consulting. The consultant acting on his/her own can neither analyse nor solve a problem. Of necessity consultant and client must form a team in order to be able to implement the problem-solving process whereby the quality of co-operation will determine the success and results of the project.

Some authors even consider economic aspects to be characteristics of management consulting, i. e. consulting is provided in exchange for money. In the opinion of this author, this aspect is not so relevant, since it is not an indispensable condition of management consulting, which can be performed without payment.

No definition of management consulting definition could be found in literature which would consider all the above characteristics to be "necessary" for consulting. For this reason, within the scope of this present work, the author shall formulate a referential definition for management consulting. The basis for it is the analysis of the above-mentioned definitions.

At this point, the author makes a remark concerning the ethics of consulting. Although consulting does not exist as a legally protected professional designation, there exists a "kind of ethics" in consulting. However, the concept of ethics will not be further examined here since ethics is not one of the objects of this investigation[11]. The ethical rules of consulting have been determined or influenced by different authors (Elfgen&Klaile, 1987, p.96), but especially by the consultants' associations (Lippitt&Lippitt, 1999, pp. 105-134).

• Referential Definition of Management Consulting in the Context of this Work

Based on the above analysis, in the following the author introduces a referential definition of management consulting:

Referential Definition of Management Consulting:

Management consulting is conceived of as a service under which a consultant system and a client system enter a commitment to co-operate within a project and towards the objective of analysing the client system and finding a solution for it. It is desirable that the consultant participates in all problem-solving stages, i. e. from problem analysis all the way through to implementation.

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[11] For further information on consulting ethics see Klose (1990, pp.117-136).

In this section it was argued that there was not found any generally accepted definition of management consulting. The existing literature on management consulting provides a pick-and-mix of different approaches, whereby none of them has obtained general approval. Thus, the author has developed a referential definition of management consultingwhich shall be used as working basis for this research. This definition attempts to explain the term "management consulting" rather from a system-oriented perspective.

In the subsequent section (2.3.3), management consulting shall be considered from a system-oriented view.

2.3.3 Management Consulting from a System-Oriented Perspective

In the following remarks the service of management consulting shall be considered from a system-oriented view. The system-theoretical consideration of management consulting is widespread in literature (Althaus, 1994, pp.28; Stutz, 1988, pp.117; Kubr, 2002, pp.42; Wohlgemuth, 2003, pp.115).

From the referential definition, it may be concluded that consulting is a service where a client organisation and a consultant organisation interact for the limited period of time of their object. These two sub-systems are related to each other by the process of consulting.

These three components of consulting shall be outlined in the following. First the author will explain the most important consulting terms:

A) The client or client system shall be conceived of as (Hoffmann, 1991, pp. 27):

- The client system in a wider sense: the organisation hiring the consultant.
- The client system in a stricter sense: the person or group of persons being in direct contact with the consultants.

Within the client system in a stricter sense, different classifications can be found. The classification below by Kubr (2002, p.63), based on a classification by Schein (1987, pp. 117), describes the client system in a stricter sense as follows:

- Contact clients: clients establishing a first contact with the consultant.
- Intermediate clients: clients participating in the various jour fixe dates.
- Main clients: clients directly facing the problem which becomes the object of consultation.
- Contract clients: clients responsible for choosing the consultant during the selection stage
- End clients: clients in contact with the project result but not necessarily with the consultant.
- Paying clients: clients financing the project.

B) In analogy with the client system, the consultant or consultant system shall be conceived of as (Hoffmann, 1991, pp.27):

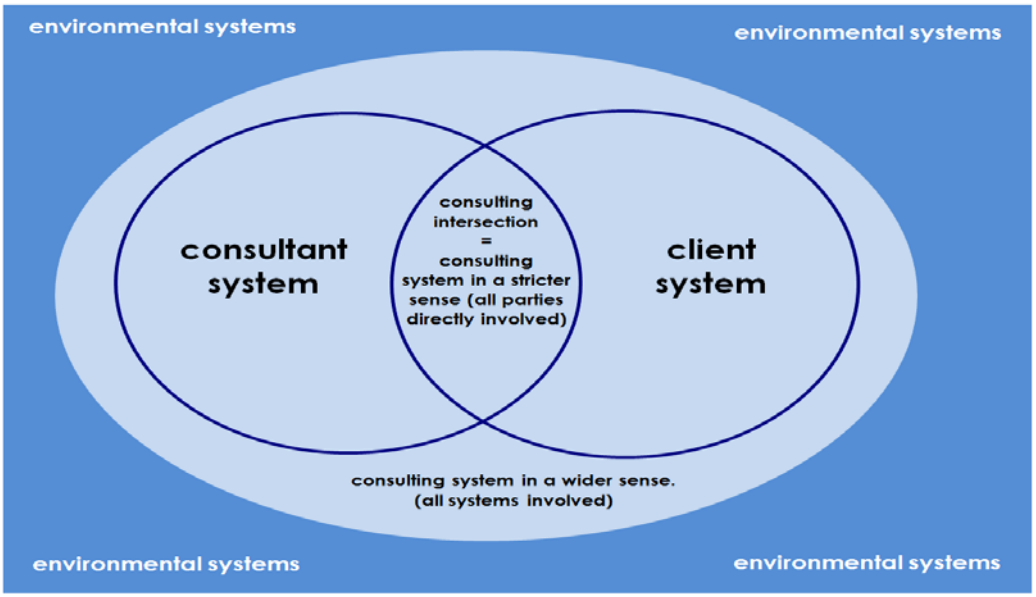
- The consultant system in a wider sense: the consultant as an organisation.
- The consultant system in a stricter sense: the consultant as a person or group of persons being in direct contact with the client.

C) The consulting system is defined as follows (Stutz, 1988, pp.63; Hoffmann, 1991, pp.26; Köppen, 1999, pp.29):

- Consulting system in a wider sense: the consulting system in a wider sense shall be understood as the relationship between the client system and the consultant system. In this context consideration must also be given to the environment (persons and organisations) having a direct or indirect impact upon consultancy (e. g. sponsors, investors, market partners, the legislator, the political environment, the public, among others).
- Consulting system in a stricter sense: the consulting system in a stricter sense shall be understood as the relationship between the persons comprising the client and consultant systems. Consultant and client are in direct contact during the consultation and together they produce the consulting performance.

The following figure 11 shall reflect the relations between the consulting components mentioned above.

Figure 11: Descriptive model for the consulting system following Stutz (source: Stutz (1988, p.119)

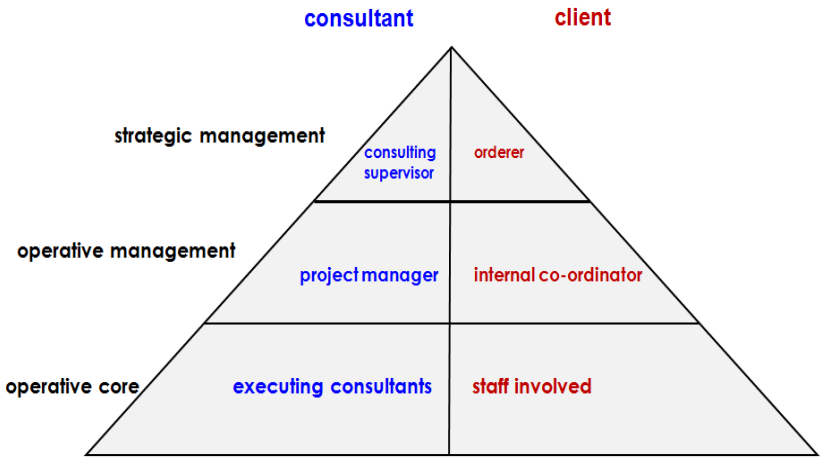


What and how many consultants and client staff are included in a consulting project generally depends on the complexity of the consulting performance itself.

In general terms, the consulting firm and the client enterprise each have their specific hierarchies. Within a consulting project, they compose together a third hierarchic unit.

The following exhibit is intended to represent the consulting system with regard to the persons involved:

Figure 12: Hierarchic structure of a consulting project
(source: Strasser, 1993, p.72).



The consulting system in a wider sense is institutionalised by the representatives of the client system (as the principal) and the consultant system (as the agent) through consulting contracts (Stutz, 1988, pp.120). Participation in the consulting system in a wider sense does not necessarily result from participation in the object of consultation (the consulting system in a stricter sense), but rather from participation in the consultant or client systems. The participants in the object of consultation in a wider sense may perceive the effects of the object of consultation either directly or indirectly (Stutz, 1988, pp.122).

The participants in the consulting system in a stricter sense are directly involved in producing the consulting performance. According to the different project phases, different participants in the consulting system in a wider sense may be integrated. The participants in the system are assigned their respective tasks and functions by the consultant and/or client systems (Stutz, 1988, pp.122).

From a system-oriented view on management consulting as argued above, it might be concluded that both consultant and client may be designated as personal and institutional systems respectively which are linked through a contract network.

In this section management consulting has been considered from a system-oriented view. It has been argued that the consulting system can be seen both as a consulting system in a stricter sense where the consultant and client produce the consulting performance and as a consulting system in a wider sense, where, in addition to the consultant and client, also the environment (e. g. sponsors, investors, market partners) is regarded as part of the consulting system.

The subsequent section (2.3.4) shall now refer to the different types and activities of management consulting.

2.3.4 Types and Activities

Providing expertise and advice can be named as the major task of management consulting, within this, there is a broad range of consultancy types and activities. The most common models of conceptualising the range of different management consulting types and activities are those of:

- Task versus process model
- Non-directive versus directive
- Consultancy styles.

Each of these shall be briefly presented:

- Task versus process consultancy models

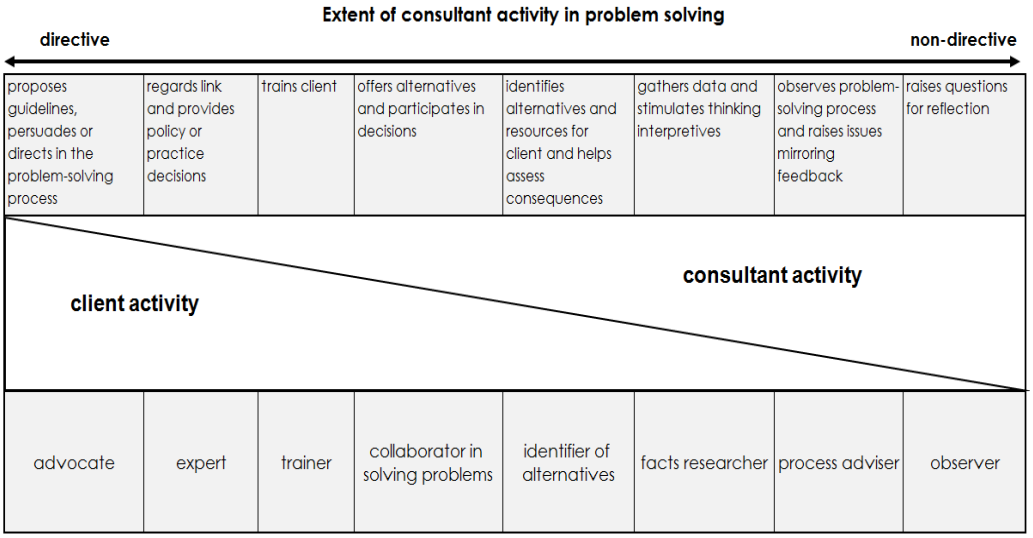
  > Task orientation: The task versus process model was used by Margulies&Raia (1972) to classify the different roles which consultants adopt. According to their notion, the task-oriented approach to consultancy emphasises the role of the consultant as a 'technical expert', where the consultant assesses problems through the collection of data and the application of 'expert knowledge'. The client usually expects from the consultant entrusted with this task that he or she provides ideas and opinions, designs data collection methods and presents this data with expert interpretations to the client company. In this context, the relationship with the client is seen by Margulies&Raia (1972) as essentially objective, detached and task/ problem-oriented.

  > Process orientation: In contrast to the task orientation, in the model of process orientation, Margulies&Raia (1972) see the consultant as being more of 'problem sensor' and 'facilitator'. Problem-solving activities by the consultant focus on the problem-solving capability of the organisation and creativity. Providing meaningful data shall enable the clients to use their own interpretation and to develop their own solutions. Relationships with clients in this approach are personal, involved and process-oriented.

- Non-directive versus directive consultancy models

These models are based on the extent to which the consultants direct problem solving activities for the client. At the directive end of the continuum, the consultant is highly involved in the activity of problem solving for the client, proposing specific guidelines or directions for problem solving. At the other extreme, the non-directive consultancy approach simply raises questions for the client to reflect upon in a non-specific directive manner. One of the most quoted models in this category is that of Lippitt&Lippitt (1979), who use the continuum of 'non-directive versus directive' consultancy activities to distinguish different alternative roles for the consultant. This model is shown in Figure 13 below.

Figure 13: Directive and non-directive consultant roles
(source: Lippitt/Lippitt, 1979, p.31).



From Lippitt&Lippitt's model (1979) it can be taken that, at the directive end of the spectrum, the consultant essentially plays an 'Advocate' role in the consultancy and problem- solving process with a high degree of involvement in problem solving and direct recommendations to the client. At the other extreme, the consultant acts more as an 'Observer/Reflector' playing an essentially non-directive role in the problem-solving process by, for example, simply raising questions for the client to reflect upon. In between there are roles such as 'Process Counsellor', 'Fact Finder', 'Alternative Identifier and Linker', 'Joint Problem Solver', 'Trainer/Educator' and 'Informational Expert'.

- Styles of consulting

The third model of consultancy approaches and roles is less a continuum and more a typology of alternative consultancy styles. The notion of styles of consultancy was first proposed by Blake & Mouton (1983), but has since been developed by Cockman et al. (1992). Cockman et al. (1992, pp.22) suggest four distinctive styles which can be employed by the consultant. These are 'Acceptant', 'Catalytic', 'Confrontational' and 'Prescriptive'.

> Acceptant Style: This kind of consulting is based on helping the client confront organisational problems by encouraging them to find what is blocking their ability to solve these. It uses the deployment of careful listening techniques, and attempts to understand the problems and difficulties from the client's point of view using empathy and through the provision of emotional support. It is essentially a neutral and non-judgemental style, designed to encourage clients to find their own solutions to problems and encouraging the client to express their innermost thoughts and feelings about a situation.

> Catalytic Style: This style of management consultancy centres on helping the client address problems and needs by clarifying existing data and/or gathering additional data. This data is then used to help the client make a diagnosis of the problem. This approach is based on the notion that once clients have the relevant data or information, they themselves will be able to identify options and move towards solutions. Responsibility for solutions and decision making remains with the client. This type of consultancy assumes that either data absence or overload is the main problem to be overcome.

> Confrontational Style: This kind of consultancy is used where the consultant believes that the clients are part of the problem and in particular where there are discrepancies between what clients say or think they do, and what they actually do. The approach taken is to highlight the discrepancies between the client's stated values and behaviour and their actual values and behaviour. The idea that once these discrepancies, together with the implications, are pointed out to the client, then the client will begin to move towards a solution to the problem. The consultant needs to have strong interpersonal and communication skills to utilise this approach.

> Prescriptive style: This style of consultancy involves listening to the client's problems, collecting any data required, making sense of and interpreting this data, and finally presenting clients with a solution or recommendation. As Cockman et al. point out, this is the style used by experts and is essentially based on the assumption that the clients themselves do not have the skills, knowledge, or objectivity to make an accurate diagnosis or prescription of their own. It is perhaps the case in most management/organisational consultancy settings that the client does not have some skills, knowledge, or the required objectivity to make their own diagnosis or recommendations. The consultant, therefore, has to be careful not to alienate or insult the client by being too prescriptive. However, the prescriptive style can be useful where quick solutions and decision making are required due to the situation or where the client's expectations are for specific and definitive proposed solutions.

In this section the most common models of conceptualising the range of different management consulting types and activities have been presented. The following explanation shall indicate the roles which management consultants typically adopt in the consulting process.

2.3.5 Consultant-Client Relationship

During scrutiny of the relevant literature, it has become obvious that many authors are pre-occupied with the relationship between consultant and client. They tried to classify the behaviours of consultants and clients, i. e. they searched for the typical roles assumed by consultant and client in (standard) projects. In this, the term "role" may have a different significance, since it may refer both to the social role of the consultant and to the intensity of his/her participation in the consulting process (Köppen, 1999, p.34). In the following, the term "role" will be defined for this work:

"A role is the sum of behaviour expectations the holder of a position faces and experiences within an organisation."

source: Strasser, 1993, p. 83

Roles mean a simplification of behaviour, in order to show the complexity of the interactions between consultant and client. In this research work, consultant and client as roles will not be analysed in depth, since this would be beyond the scope of the investigation. Nevertheless, for the sake of clarity, the author will provide an overview of the roles of consultant and client below.

2.3.5.1 The Role of Consultant

In literature different schools of thought regarding the role of business consultants can be found. Some authors argue that consultants fulfil mainly a single role whereas others assume that the consultant adopts a number of roles which he or she judges to be appropriate for the client and the situation.

The two most commonly used categorisations in literature to distinguish between different types of consultants' roles are that of content vs. process and the directive/non-directive continuum (e.g., Lipitt&Lippitt, 1979).

Content-focused consulting roles involve the provision of expertise (e.g., information) and delivery of a specific service for the client (e.g., designing a new system). Process consulting, by contrast, is "a set of activities on the part of the consultant that help the client to perceive, understand, and act upon the process events that occur in the client's environment" (Schein, 1987, p.34).

The range of types of activities which management consultants can provide in organisations can be distributed along the directive/non-directive continuum, as illustrated in preceding Figure 13. The figure also serves to highlight how the consulting activities at the non-directive end of the continuum place the client in the position of primary protagonist and the consultant on the margin, while the activities towards the directive end of the continuum assign a far greater presence to the consultant and tend to marginalise the activity level of the client.

Equally interesting is the classification by Elfgen&Klaile (1987, pp.112), where the roles of consultants and clients are distinguished according to their impact upon problem-solving:

The crisis manager: [12]
The consultant assumes the competences of someone within the client system. Typically, the consultant assumes this role in a crisis, in order to be able to introduce adequate solutions for the problem quickly. In this, the client plays a rather passive role.

The problem solver:
The consultant accompanies the process of finding a solution for the problem.[13]

The promoter:
The consultant assumes an active role in the process of finding a solution and does not only provide information.

The interventionist:
The consultant assumes a certain responsibility in solving the problem. The role is a mixture of promoter and process counsellor.[14]

The process counsellor:
The consultant must provide the client with the necessary methods for solving the problem. In this, the consultant is a kind of procedure specialist but he is not directly responsible for solving the problem.[15]

The neutral third party:
The consultant helps by means of specific questions. In seeking answers, the client becomes capable of solving his/her problem alone. The consultant behaves in the capacity of a third party who is not involved.[16]

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[12] Other authors also designate this role as “temporary management”, “part-time management“, “trouble shooter” or “fire fighter” (cf. Elfgen/Klaile, 1987, p.114; Zander/Ziehm, 1983, pp.54; Läubli, 1985, pp.72; Wohlgemuth, 1991, p.141).

[13] For example Läubli (1985).

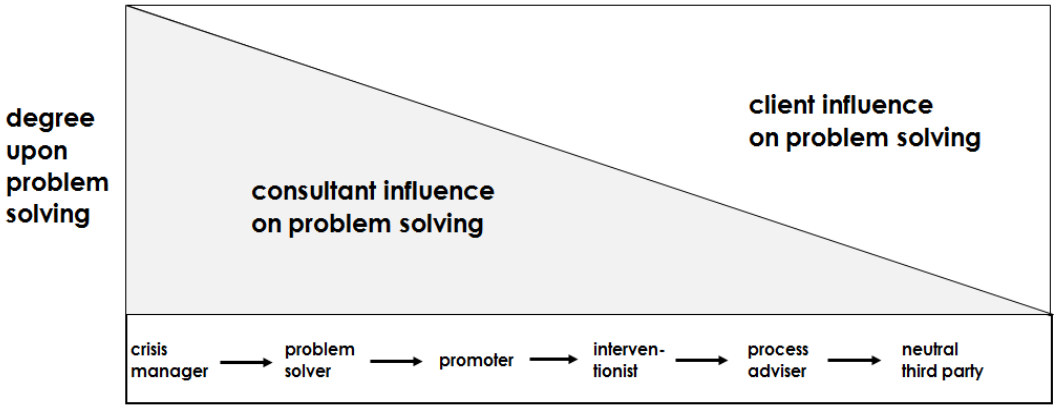
[14] For example Strasser (1993).

[15] For example Strasser (1993).

[16] Cf., e.g., Williams&Woodward (1994).

The following Figure 14 reproduces these roles:

Figure 14: Consultant roles according to their impact upon problem solving (source: Strasser, 1993, p.85, following Elfgen/Klaile, 1987, p.113).



An other classification of the consultant's roles in the consulting process is given by Hoffmann (1991, pp. 87):

The realiser:
The consultant assists in the implementation of the solutions elaborated by the client.

The problem solver:
The consultant seeks possible solutions and provides recommendations.

The information provider:
The consultant provides a certain knowledge as yet missing in the client system.

The expert:
The consultant behaves in the capacity of a neutral third party in a conflict.

The process promoter:
The consultant co-operates with the client in all aspects pertaining to the problem-solving process.

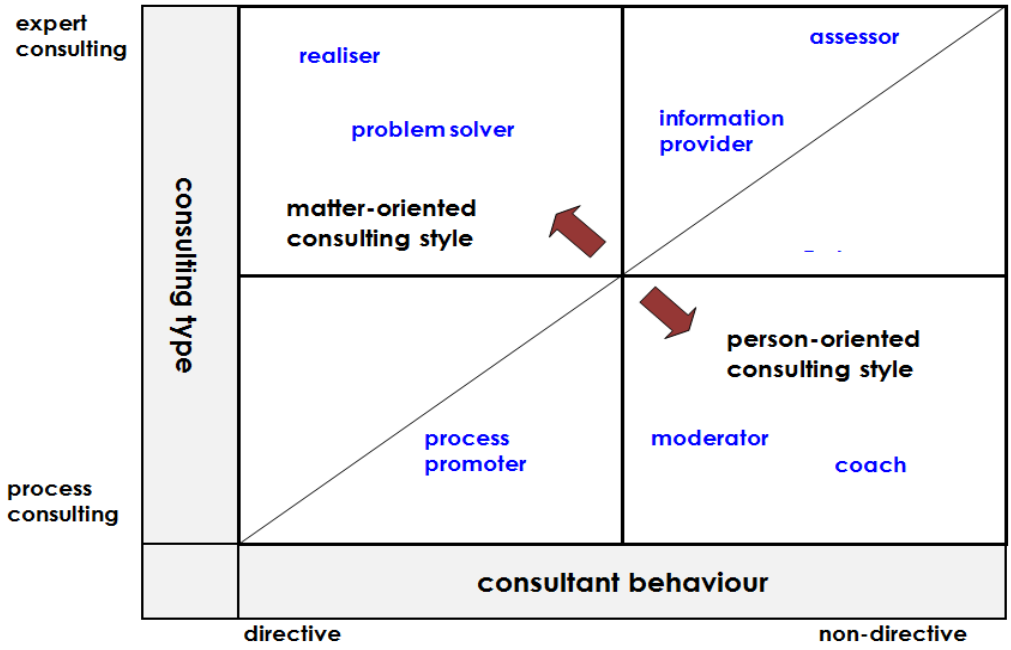
The trainer:
The consultant shows certain techniques or helps in the enterprise's change process.

The catalyser/moderator:
The consultant assumes the role of a coordinator within the enterprise's internal problem-solving process but is not directly responsible for solving the problem.

The coach:
The consultant works together with someone from within the client system. The consultant helps that person in his/her daily work with his/her recommendations.

The following Figure 15 reproduces this classification:

Figure 15: Consultant roles following Hoffmann (1991, p. 87).



A different classification may be found in Strasser (1993, pp.84). Strasser (1993), for example, classifies the roles according to different approaches:

1. Differentiation of roles according to degree of impact (neutral third party, process counsellor, interventionist, promoter, problem solver, crisis manager)

2. Roles according to their function:

   a) Consultant roles regarding the capacity function (external staff position, project manager, temporary manager).
   b) Consultant roles regarding the transfer function (information provider, instrument provider, method provider, process catalyser) c) Consultant roles regarding the neutrality function (arbiter, representative towards third parties, coach, innovator, confirmer, status holder).

According to Obolensky (2001, p.318) the underlying needs in the consulting process usually require a mix of the four different types of roles. These are: adviser, educator, coach and leader.

A more recent classification is presented by Canato&Giangreco (2011, pp.231). They refer to the aspect of innovation and speak of four roles which the consultant can adopt. These roles are the following:

- information sources (e.g. provide information about the industry, assess performancerelative to the industry, enhance decision making);

- standard setters (e.g. provide source of legitimacy, disseminate and control the diffusion of new ideas in the market);

- knowledge brokers (e.g. detect and transfer useful experience from one industry to another, devise innovative solutions) and

- knowledge integrators (e.g. help organizations implement new solutions, lower knowledge requirements for customers).

A different view on consultant's roles is given by Sturdy (2011, p.519) and Sturdy&Wright (2008). They consider the relationship between the consultant and client upon the background of the question, what influence is exerted from the consultant on the client by which activities. Sturdy (2011), Sturdy&Wright (2008) argue that all these activities such as offering expertise, extra staff, facilitation of change and legitimations to client as well as non-project-specific work (e.g. R&D, sales promotion), can be seen to have varying impacts on management.

2.3.5.2 The Role of Client

Much less work has been done to differentiate client roles than consultant roles. Literature hosts relatively few articles concerning the client's role in consulting. Among the reasons for this might be the fact that in most cases the consultant is seen as the main or predominant consulting party, where the client as consulter is easily identifiable. However, the approach may seem to be incomplete because there are always two parties involved in consulting, the client who commissions the consultant by specifying his concern and the consultant who gives expertise and/or advice.

The role of the client in the consulting process basically differs among projects and priorities. In the consulting process the 'client' is normally seen as the demand side of the process. This concept may be problematic because it is not always clear who exactly the client is (Schein, 1997). Schein (1997) argues that the client's organisation entails different types of clients and that lack of knowledge of these types can generate role conflicts which might impair the relationship between the process consultant and the client and therefore jeopardise the project. According to him, the needs of clients and the role which they play can evolve throughout the consultation process. This change can therefore affect the management consultant's perception of his client's needs and expectations. As noted by Schein (1997, p. 203), "the helper is always dealing with more than one part of the client system, and some parts may not have the same needs or expectations as others".

Schein (1997) identified six basic types of clients, which are as follows:

- Contact clients:
  the individual(s) who first contact the consultant with a request, question or issue.

- Intermediate clients:
  the individuals or groups who are involved in various interviews, meetings and other activities as the project evolves.

- Primary clients:
  the individual(s) who ultimately "own" the problem or issue being worked on - they are typically also the ones who pay the consulting bills or budget covers the consultation project.

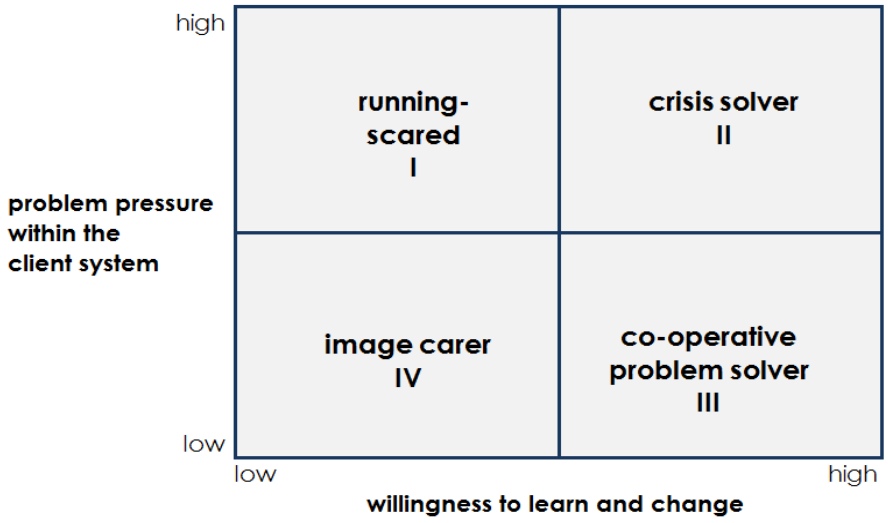
- Unwitting clients:
  members of the organisation or client system above, below and laterally related to the primary clients, who will be affected by interventions but who are not aware that they will be impacted.

- Indirect clients:
  members of the organisation who are aware that they will be affected by the interventions but who are unknown to the consultant.

- Ultimate clients:
  the community, the total organisation or any other group who the consultant cares about and whose welfare must be considered in any intervention that the consultant makes.

A different typology to that of Schein (1997) has been established by Fleischmann (1984, p.123). In his typology, he rather concentrates on the issue of problem solving and the willingness to learn and change than on the relationship between client and consultant.

Figure 16: Client typology following Fleischmann (1984, p.123).



- The "running scared":
  The client hires the consultant because he/she has an acute problem to solve. He/she passively awaits a solution.

- The crisis solver:
  The client co-operates with the consultant in the consulting process. He/she is under pressure and therefore needs a quick solution.

- The co-operative problem solver:
  The client co-operates with the consultant in the problem-solving process. He/she is not under pressure and therefore the process may last longer.

- The image carer:
  The client hires the consultant in order to enhance his/her image.

The matrix of Fleischmann (1984, p.123) suggests that two kinds of clients can be found when there is urgent pressure to resolve a problem: those who want the consultant to solve the problem for them (the "running-scared) and those who are interested in learning and participating in resolving the problem themselves (the crisis solver). When there is low problem pressure, clients may feel that they can afford to take the time to learn (the cooperative problem solvers), or they can be quite uninterested in learning (the image carer).

Against the background given, the relationship between consultant and client may be overshadowed by the consultant's understanding of the role which he/she needs to take up in the contemporary consulting process. This situation might lead to discrepancies between the parties involved in the consulting process and thus to criticism of management consulting. The subsequent section shall give a critical review of the activities of management consulting.

2.3.6 Management Consulting: A Critical Review

While the management consulting industry has been growing relatively steadily over the last few decades (FEACO 2012), it has become subject to numerous criticisms within academic literature (e.g. Pinault 2001; Byrne 2002; Clark& Fincham 2002; Kitay&Wright 2004; Craig 2005; Kihn 2006). Some articles criticise the role of business consultants in the consulting process but most of the criticism is focused on the account of failed consulting projects (e.g. Smith 2001; Pries& Stone 2004; Warren 2004; Appelbaum&Steed 2005). Despite numerous criticisms of management consulting there is a severe shortage of academic literature on how the failures of consulting activities are to be seen (Schaffer,1997). There are critics who have identified some reasons for failed consulting projects. Some of these reasons are "the 5 fatal flaws of management consulting" (Schaffer, 1997), "the cardinal sins" (Weiss, 1996) and "the 15 pitfalls for the client advisor" (Sobel, 2004). Many client managers suggest that consulting assignments have a failure rate of between 25 and 50 percent (Czander, 2001) and they also claim that more than 80 percent of all consulting assignments fail (Zackrison&Freedman, 2003).

If we consider criticisms of the roles which the consultant may take up in consultancy, then Kakabadse & Louchart (2006, pp.429) can be exemplarily mentioned, who argue against the role of management consultants for the following reasons:

- Consultants take up a dominant position in the consulting process (e.g., consultants operate in opportunistic mode or need to balance the scope and the length of their work between their own or company's needs and their clients' needs).

- Business consultancy is regarded as a modern folly (e.g. the thinking and approach underpinning business consultancy is flawed and the projects given to business consultants perform no real practical role beyond keeping certain groups of men and women employed).

- Business consultants are fashion setters (e.g. in charge of setting the trends), or they demonstrate the efficiency of their "brand new" tools and techniques to managers perpetually. The only role of the business consultants is to "package and repackage the solutions as fashionable" and to sell those "pre-conceived" solutions as a remedy to managers in difficulties.

- Business consultant's tool (e.g. the rhetoric used by business consultants serves only one purpose: mystifying the appearance and enhancing their presence; they may give the client poor advice, but they will look good while they do it).

The consultancy Droege & Company conducted a survey of projects which shows that many projects achieve their goals only partly and with considerable delays (Klenter&Möllgard 2006, p. 141). Klenter&Möllgard (2006) state that the most critical reasons for failed consulting projects are the absence of tight project controlling and an inflation of projects. In Smith's study (2001), the ineffective project management was quoted as also being the main reason for failure.

Studies or articles in relevant literature giving explanations for consulting failure can be classified into the following different groups:

- personal characteristics of the consultant and of the client (e.g. lack of skills),
- technical shortcomings (e.g. ineffective project management),
- unstable or bad consultant–client relationship (e.g. lack of communication),
- socio-political aspects of client's organisation (e.g. hidden agendas; unwillingness for/resistance to change).

Another critical view on consultants' activities is given by Nikolova&Devinney (2007), who mention in their working paper on the relationship between consultant and client three models which justify criticisms against consultants. Following Nikolova&Devinney (2007), the expert model describes the client-consultant relationship as a client-expert interaction and views consultants as knowledge experts. In this respect, for example, consultants are criticised as agents who believe that they know better than their client what services the client really needs. The critical model has been developed against the background of achieving a better outcome from consulting projects. It stresses the symbolic character of consulting and, expressed as a simplification, regards consultants as impression managers seeking to make their clients dependent on the management fads they produce (Nikolova&Devinney, 2007).

A third model of the consultant-client relationship is seen as being positioned as a criticism of the expert model and concentrates on the insight that consultants as outsiders to the client organisation differ in their knowledge, work methods and language, which can be a considerable burden for a successful interaction with the client.

A further criticism with regard to the relationship between client's management and management consulting is given by Sturdy (2011, pp.525). Due to the assimilation of consultancy practices into management, Sturdy (2011, p.525) sees consultancy in some respects as moving closer to management and therefore into some form of identity crisis. If the high degree of failure of consulting assignments is additionally taken into account (Zackrison&Freedman, 2003), then Reed's (1989) views on management and his concluding argumentation can be underlinedto the extent that classic consultancy concepts such as management consulting might have reached their limits (Reed, 1989, p.176). According to Reed (1989, p.177), an answer to this situation is the development of perspectives which conceive of alternative management consultancy concepts. Astrological consulting may be one of these alternative consultancy concepts. The subsequent statement in Section 2.4 shall give an outline on astrology and its branch of consultancy.

2.4 Astrological Consulting

For centuries mankind has concerned itself with astrology and its predictions. As astrology often appears in the form of horoscopes in many types of magazines it is almost impossible to avoid contact with this phenomenon in everyday life.

2.4.1 Historical Fundamentals

Of the one million years of human history, hardly 5,000 are documented by written sources. This means that only a relatively short period is accessible to us by means of historiography. Any further information can thus be obtained exclusively from archaeological finds and anthropological knowledge.

- **The Origins**

The origins of Western tropical astrology cannot be as clearly dated as is often assumed. Literature offers different views but in a culture-historical view most authors date the roots of the Western astrology back to Ancient Mesopotamia (e.g. Campion, 1982; Knappich, 1988). In a similar way to the history of Mesopotamia, its astrology passed through three periods of development: early or augury astrology, primitive zodiacal astrology and horoscopic astrology (Kasak, 2000).

Primitive zodiacal astrology developed in the state of Chaldea or Late Babylonia, which emerged after Assyria had been destroyed by the Babylonians. Zodiacal astrology demanded much more of astronomy than predicting astrology had. This was the beginning of diligent moon-watching and elaboration of the cycles of the planets. Knowledge emerged which could be used to indirectly calculate the position of the planets and the moon - this was useful later when compiling birth horoscopes since a child could be born during the day or on a cloudy night (Kasak, 2000). Horoscopic astrology appeared in Mesopotamia during the Persian occupation.

- **Antiquity**

During the period between approx. 100 B.C. to 400 A.D. Ancient Rome and Greece saw astrology flourish brightly. There it was seen as a scientific discipline and represented the universal model to interpret reality. Hellenistic astrology was primarily concerned with the character and fate of the individual. Throughout the Hellenistic period, Western astrological tradition eclectically absorbed elements from the philosophical and hermetic trends circulating at the time. According to Stuckrad (2003, p. 382), the concept of correspondences between micro- and macro-cosmos, the principle of "as above, so below", which is so fundamental to esoteric thought, including astrology, can be found as early as 1000 - 300 B.C. in Mesopotamia, Egypt, and Greece. Horoscopes were now elaborated not only for kings and important state events but also for common citizens (Stuckrad, 2003). It became the leading interpretation technique and played as important and virtually undisputed role in daily life as it did in politics (Stuckrad, 2003).

- **The Middle Ages and Renaissance.**

After Antiquity astrology came to flourish in regions under Christian control. During the Middle Ages, monasteries were the main centres of astrological "research". In the early Middle Ages, astrology was divided into two branches, namely illicit astrology, which determined the character and fate of the individual (considered to have become superfluous with the victory of Christ), and licit astrology, which focused on meteorology, other aspects of nature, and medicine (Stuckrad, 2005, p.122).

The 15th to 17th centuries were the golden years of European astrology. Learned astrology enjoyed an immense flowering throughout the Renaissance. Its centres were the courts and universities, where it developed in connection with astronomy and medicine. Hardly a single monarch or aristocrat was without a personal astrologer, and in most cases astrology even enjoyed the support of the Papacy (Campion, 1982).

With the discovery of the Americas and the idea of the earth as a globe, a new conscientiousness gradually arose, thereby edging out the ancient conception of the world (Knappich, 1988). It is the time when astrology is first questioned for working – as it still does today – based on the geocentric world view (Knappich, 1988). During the following two centuries (17th and 18th), astrology was in a deep crisis and degenerated. The occult properties linked to astrology were no longer compatible with the new paradigm. Astronomy and astrology were finally separated (Knappich, 1988). The crisis which astrology was undergoing was felt in practically all European countries, with the sole exception of Great Britain, where astrologers continued to be highly respected as professionals and the astrological market was flourishing.

During the 18th century, definitely however at the beginning of the 19th century, astrology had disappeared from among the acknowledged sciences and also from Christian theology. Until the 18th century, it was self-evident among scientists that divine forces acted in nature and cosmos (Stuckrad, 2003).

- **The Present**

Although the inception of modern astrology dates back to the late 19th century, modern astrology as we know it today actually took off in the second part of the 20th century. From the 1960s it successfully aligned itself with popular culture and from the late 1980s to the beginning of the 21st century it has expanded further as a consequence of the growth of computer technology, television and the Internet. Western astrology has mainly spread to the countries most affected by the modernisation process, such as North America, Europe, and Japan, but Western astrology is also gaining firm ground in countries such as Argentina, Turkey, South Africa, Mexico, and Brazil.

The present is marked by a clear-cut separation of astrology und astronomy. Astrology includes the planets Uranus, Neptune and Pluto in its interpretations. Spreading out from Great Britain as a starting point, at the beginning of the 20th century astrology became once again popular in other European countries and the U.S. (Stuckrad, 2003). From the 20th century on astrology regained a foothold as an alternative way of thinking, though outside the sciences and clearly separated from astronomy.

The appearance and growing significance of psychology at the beginning of the 20th century, especially towing to psychoanalysis, inspired astrology to interpret horoscopes from different perspectives. Of especial interest in this regard is the approach developed by the Swiss psychologist C.G. Jung (1875–1961)[17], which integrates non-psychic dimensions and incorporates transcendent spiritual elements in its conception of man. During the early 20th century a series of new schools were founded in many countries, some of which were significant for the subsequent period. Currently, astrology is represented in most Western countries by professional associations.

The traditions of Western Astrology of these days can be divided into three main streams: esoteric, psychological and empirical astrology.

Esoteric astrology:

In the late 19th century astrology experienced a revival in esoteric circles, principally the Theosophical Society founded in 1875 in England (Stuckrad, 2003). The Theosophical Society aimed to make known the esoteric doctrines contained in all religions and to speak against modern natural science, which was seen as incomplete because it disregarded the spiritual powers at work in nature. To the adherents of theosophy the planets are not just dead, physical bodies, there are living essences working through them (Stuckrad, 2003).

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[17] Carl Gustav Jung studied medicine and later worked as psychiatrist in Zurich. Initially he focused on Freud's psychoanalysis but then distanced himself from Freud, developing analytical psychology, which is still continued and further developed by the C. G. Jung Institute in Zurich.

Psychological astrology:

In addition to theosophy the development of psychology also prepared the way back for astrology at the end of the nineteenth century. This psychological astrology picked up the thread of psychoanalysis, which concerned itself with the "unconscious" regions of the human mind. The psychologist Carl Gustav Jung (1875-1961) attempted to decode the rich symbolic world of nocturnal dreams. In this process he came across images and symbols time and time again which also appear in the myths and fairy tales handed down to us. This led him to the idea that the gods of the heavenly bodies in astrology are actually pictures in our mind. Carl Gustav Jung did not believe in newspaper horoscopes but he did believe in the possibility that astrology could inform us about the human mind and – on a very general level – about the future of important historical developments. In this way, astrology has found its way into some forms of practical psychological consultation.

Empirical astrology:

Empirical astrology is the third path which the discipline took in the twentieth century. In the 1920s some astrologers began to collect statistical data and, in this way to convince sceptics as well. At that time the German astrologer Klöckler (1927), for example, investigated 5,000 horoscopes in respect of special astrological correspondences of accidents, crimes, and also particular talents of painters, poets and lawyers. He and other astrologers saw in these a tendency towards the confirmation of astrology. Yet he did not consider his results as definitely confirmed and thus, viewed scientifically, they are of hardly any value.

More comprehensive tests were carried out in the 1970s by the French psychologist Michel Gauquelin (1976). On the basis of a total of 35,907 birth horoscopes he tested whether people's career choices could be verified astrologically. He wanted to determine whether individuals with the same job would prove to have similar horoscopes. In general, astrological claims could not be confirmed. He did find slight effects but again they did not definitely confirm astrology.

A further investigation was published in 1997 by biologists Endres&Schad (1997). There as well the aim was to find even the smallest clues which could help identify an astrological connection. They wanted to determine if and how various organisms, especially plants and marine organisms, react to the various phases of the moon.

2.4.2 Astrological Consulting as a Concept

Despite the popularity of astrology in these days, its branch of counselling of enterprises remains a relatively poorly researched area within business management studies (Case&Phillipson, 2004, p. 473). The existing literature on business management has not yet actually addressed business astrology although some researchers consider this topic to be of importance (e.g. Herzberg, 1973; Knobil, 1989; Lannon, 1991; Mitchell&Haggett, 1997) and even within the corpus of scientific publications most academic efforts have only approached the subject from either a historical perspective (e.g. Tester, 1987; Curry, 1989; Stuckrad, 2003), the area of experimental psychology (e.g. Gauquelin, 1976; Dean&Kelly, 2003), a sociological standpoint (e.g. Boy&Michelat, 1986; Bauer&Durant, 1997) or from the point of view of the natural sciences (e.g., Eysenck&Nias, 1982; Kanitscheider, 1991; Thagard, 1998).

When business life is considered there appears a broader social interest as more and more corporations turn to astrologers for help in taking decisions (Case&Phillipson, 2004, p. 474). The attention of marketing executives is drawn by the possibility that astrological knowledge might enable companies to target their products and services better (e.g. Mitchell&Haggett, 1997; Phillipson, 2000). Similar interest has recently been expressed amongst the financial fraternity (Brooker, 1998a, p. 225, 1998b, p. 322; Galarza, 1999, p. 28). This renewed interest reflects a search for meaning within systems of knowledge which address the world in a less objective way than modernist, scientific approaches. As Ritzer (1998) says, while rationalisation and more accountability are being lauded in many institutions, a countervailing desire is emerging in certain segments of the population, seeking to re-enchant their disenchanted world.

- **Using astrology in business counselling**

Astrology as a consulting concept first entered consulting processes as we know them today from consulting firms and consultancies through psychology. In this context the author should point out the two great representatives of psychological astrology: Carl Gustav Jung (1875-1961) and Dane Rudhyar (1895-1985). They thought that someone's personality could be known through astrology and that the latter thus constitutes a valuable help in consulting. More recently, astrology has been applied also in areas other than psychology. Currently, astrology in the United States and Europe is increasingly finding its way into the world of business management[18]. Management and astrology appear to belong to two different fields which have only very little in common. While entrepreneurs and managers are more and more willing to tread unusual paths in decision-making (e.g. Mitchell&Haggett,1997; Case&Phillipson, 2004, p. 474), the possibility of a scientific discourse between management and astrology, or even a management approach supported by astrology, seems hard to imagine.

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[18] The consulting approach "Astrological Business Consulting" is especially common in the USA, but recently has been gaining interest also in Europe. Pöhlmann (2005, p.8) speaks of revenues of 150 million € for astrological consultations in Germany in the year 2001.

Despite different criticisms of astrology astrological business consulting has developed into a branch of its own in recent years. Its formation and establishment is especially promoted in connection with the increasing competition between enterprises and the growing complexity of the decision-making process. Because this is a very young profession, research activities in this field are still in their initial stages. This situation may also be influenced by the fact that astrology is understood much more as a "metaphysical phenomenon" than as a (serious) consulting concept. It therefore seems to be excluded from objective reality. This particularly applies to the field of economy, which is regarded as being very rational. The small number of research papers could be a reason why a satisfactory, utilisable reply regarding the question of the applicability of astrology in business consulting has not yet been given.

(Control of) the decision-making process is of immense central importance for enterprises: the ability of a company to take systematically not only the necessary but also the right decision is essential for its long term success. The recent transition to the information age has therefore focused attention on the processes of problem-solving and decision-making as well as their improvement (e.g. Whimbey&Lochhead, 1982; Nickerson, Perkins, Smith, 1985; Stice, 1987). It is therefore not surprising that the field of decision-making itself is of particular interest to management consulting,

A major difficulty in solving decision problems is the uncertainty regarding the development of the company's environment. In view of this decision-makers often try to include alternative, imaginable environmental conditions in their considerations when taking decisions and assign subjective probabilities to these conditions. It can also frequently be observed that a forecast system, or something similar, is employed, which serves to aid the decision-making process. The result of the forecasting process is then substituted for the subjective assumptions on the probability or is used as a decision support system.

Today, more than ever, it can be noted that, in the context of the operational decision-making process, entrepreneurs and managers do indeed revert to problem-solving methods, which are labelled as pseudo-sciences or para-sciences, as is the case with astrology (e.g. Mitchell&Haggett, 1997; Case&Phillipson, 2004, p.474).

Mitchell (1995, p.48) argues that astrology is proposed as an easy-to-measure psychographic variable. A prima facie case is made for the effectiveness of astrology as a marketing segmentation variable since it results in segments which are conceptually different from all other segments, easily measured, substantial enough to be worth pursuing, inclusive of every potential target member, stable over time, and, once profiled, likely to be accessible by various media. Mitchell (1995) sees several dimensions for successful marketing segmentation which have been identified and a prima facie case made for the effectiveness of astrology as a segmentation variable, which includes:

- > Mutual exclusivity, i.e. each segment should be conceptually different from all other segments.
- > Measurability, i.e. the size, purchasing power and other relevant characteristics of segments should be measured easily.
- > Substantiality, i.e. the segments should be large enough to be worth pursuing.
- > Exhaustiveness, i.e. every potential target member should be included in some respect.
- > Actionability, i.e. managerially it should be easy to reach and service the segments. In this case, astrological segments are no more or less actionable than many other psychographic segmentations. However, it is a relatively simple task to analyse media use to exposure by sun-sign group to identify media differences. Also, the quite detailed information about each sun-sign group can be used to help in tailoring marketing activities towards particular groups.
- > Stability, i. e. segments should remain stable over time.
- > Responsiveness, i.e. segments should respond differently to different marketing programmes.

Mitchell&Haggett (1997, p. 113) further argue that by analysing a large, unbiased, national data set on consumers' smoking, drinking, and leisure habits, the results of the significant differences shown in behaviour across the zodiac signs and, for some variables, the differences matched the astrological predictions. In markets where purchasing is strongly related to personality and lifestyle, astrology might allow marketers to gain more insight into current market segments very quickly, easily, and cheaply as well as providing a possible means to re-segment a market. For Mitchell&Haggett (1997, p.113) the first use of astrology is to give greater insight into a target audience for purposes of designing more effective communications. Psychographic insights gained from astrology can be extremely useful to a whole range of marketing-related people, such as product designers, media analysts, product managers, package designers, copywriters, all of whom are faced with the same basic problem of identifying the product features which will fit the lifestyle of the potential consumer and the message with which the consumer will most identify. The second use of astrology is in market segmentation (Mitchell&Haggett, 1997, p.113). The fundamental marketing argument behind the importance of recognising people's sun signs is that it may add to a better understanding of consumers, which may be used to improve communication and marketing mixes (Mitchell, 1995, p.45).

Weinman (1982), for example, recognises other distinct uses of astrology: first for surveillance to collect information on the environment warnings about dangers and threats; secondly, for correlation to provide guidance for reactions and suggestions of forthcoming events. Furnham (1991) argues that the main use of astrology is to provide an objective method to make judgements about others rather than relying on our own intuition.

2.4.3 Astrological Consulting from a System-Oriented Perspective

Literature offers practically no publications with actual results regarding the features of astrological consulting. However, given that astrological consulting offers consulting service and that similarities with management consulting may thus be found, it may be considered to be a consulting system. It is for this reason that astrological consulting like management consulting can be seen as a consulting system where a client subsystem and a consultant subsystem interact. Thus, in view of the system-oriented perspective on astrological consulting, the author shall refer to the explanations given in Section 2.3.3, where management consulting has been explained from a system-oriented perspective.

2.4.4 Role of Astrological Business Consultants

Even less has been written on the role of astrological business consultants. Due to the fact that also astrological consulting needs to be regarded, like management consulting, in respect of the consultant's role, the remarks from Section 2.3.5 shall be applied respectively. It is then the empirical validation of the two consulting concepts which verifies the statements from secondary data collection in terms of the consultant's role in the consulting process.

2.4.5 Astrological Consulting: A Critical Review

Demand from enterprises for suitable staff may seem the main reason why for some decades astrological consulting has steadily been gaining popularity in business life in both the Western and Eastern cultures. In the increasing competition of attracting the best managers, firms are more and more willing to tread new paths and even to employ alternative consulting concepts.

When the scientific investigations concerning astrology and astrological consulting are examined it can be noted that before 1950 there were only very few scientific studies on these subjects. Astrology seems to be very much taboo in the academic world. Thus far, neither the existing literature on business management has addressed business astrology, nor has the question been investigated as to whether astrological consulting is an applicable consultancy concept, although some researchers consider this topic to be of importance (e.g. Herzberg, 1973; Knobil, 1989; Lannon, 1991; Mitchell&Haggett, 1997) and, even within the corpus of scientific publications, most academic efforts have only approached astrology from either a historical perspective (e.g. Campion, 1982; Tester, 1987; Curry, 1989; Stuckrad, 2003), from the area of experimental psychology (e. g. Gauquelin, 1976; Dean et al., 2003), from a sociological standpoint (e.g. Boy&Michelat, 1986; Bauer&Durant, 1997) or from the point of view of natural sciences (e.g. Eysenck&Nias, 1982; Kanitscheider, 1991; Thagard, 1998). Critical reviews of astrological consulting in the light of research findings, post 1980, include those by psychologists Eysenck&Nias (1982), astronomers Culver&Ianna (1988), Crowe (1990), sceptics Martens&Trachet (1998), Bourque (1997) and Kelly (1999). Most of these studies focused on the gap between the claim of astrologers and their actual performance.

In as far as astrological consulting in general is concerned, Donna Cunningham offers instructions for astrological consulting in her book "Counselling Principles for Astrologers: Becoming an Effective Change Agent" (2006). In it, she also addresses the astrologer's personal qualities and the relationship between client and astrologer.

More recently there have been some works dealing with the possibility that astrological knowledge might enable companies to target their products and services better, thereby sometimes establishing, although to a very limited extent, a link with astrological consulting (Mitchell, 1995; Mitchell&Haggett, 1997; Mitchell&Tate, 1998; Phillipson, 2000). There is similar interest expressed amongst the financial fraternity (Brooker, 1998a, 1998b; Galarza, 1999); likewise there are a small number of books with a business focus published by professional astrologers (Bates&Chrzanowska-Bowles, 1994; McEvers, 1989).

The following table presents selected research studies on financial astrology.

Table 7: Overview of selected research studies on financial astrology (source: Sivakumar, 2007, p.39).

Year	Author	Aspect studied	Conclusion
1977	Mc Whirther	Sun-Jupiter impact on Dow Jones	Several stock crashes have occured when Jupiter opposes the sun.
2001	Dichev and Janes	Lunar cycles and stock returns	Returns in the 15 days around new moon dates are about double the returns in the full moon days dates.
2001	Hirshleifer and Shumway	Sun impact on stock markets	Stock returns tend to be higher on sunny days, most likely because sunshine induces optimistic behaviour.
2006	Yuan et al.	Lunar phases and global stock returns	Stock returns are lower on the days around full moon than on the days around new moon. The magnitude of the return difference is 3% to 5% per annum.
2007	Herbst	Lunar cycles and stock returns	Predictable lunar influence is found on either daily returns or daily price volatility in the Dow Jones Industrial Average, for either new or full moons.

2.4.6 The Connection between Astrology, Consulting, Modernity, Oriental Epistemology and Ontologies

Proceedings in consulting, like organisation consultancy, are essentially marked by the consultant's epistemological standpoint and consequently his or her basic ontological and epistemological positions (Becker, Holten et al. 2003, p.8):

- **Ontological premises**

Ontology is the science dealing with question of being (Lee, 2004, p.5). It is especially concerned with the question of whether there is reality independently of our perception.

In the classical systematisation of philosophy, ontology is a part of general metaphysics (metaphysica generalis) as opposed to special metaphysics (metaphysica specialis), which occupies itself with God (i. e. natural theology), the soul (natural psychology) and the world (natural cosmology). Special metaphysics is linked to the demand that certain areas of entities (objects, properties, processes) should be examined solely on a rational basis (i. e. non-empirically). Hence typical questions of special metaphysics are those concerning the issue of whether the world had a temporal beginning or whether the soul is immortal. Methodically, classical ontology frequently uses language in which it believes to find the expression of real and unreal.

- **Epistemological premises**

Apart from the ontological premises, a consultant's position is determined also by his or her basic epistemological positions. Epistemology dedicates itself to the questions of how knowledge originates and how it can be perceived (Lee, 2004, S. 6). In this, two opposing positions may be discerned: For one part, the opinion that the world and its concepts can be perceived objectively, and, for another, that perception must always be subjective and it is hence impossible to experience the world truly objectively (Burell&Morgan, 1979, p. 1).[19]

These two basic positions may be combined within the following framework (Becker, Holten et al., 2003, S. 8; Holten, Dreiling et al., 2005, S. 178).

It is in the nature of oriental epistemology that astrology, given its holistic view on things, enjoys a better reputation within the social community as is the case in the Western sphere of influence. This may be explained basically through the differences between the Western and Eastern philosophies.

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[19] Further frameworks regarding epistemological positions can be found in (Burell& Morgan, 1979; Hatch, 1997; Alvesson&Deetz, 2000; Easterby-Smith, Thorpe et al., 2002).

- **Oriental Epistemology and Ontologies**

The spiritual philosophies of the East differ in important issues from Western thinking and life, which have been decisively marked by the scientific disciplines. Thus the Western sciences describe the universe as an "infinitely complex mechanical system of individual interacting parts and separate objects" (Grof, 1986, p.13)[20]. This means that for the Western life conscience and creative intelligence are but "insignificant derivatives of a material development", which are of an arbitrary origin and play a negligible role in a gigantic universe (Grof, 1986, p.13). Western thinking is marked by the duality of man and nature (Heidegger, 1965, p.25). As Nakamori&Sawaragi (2000, p.180) emphasise in their scientific paper on complex systems: "if we do not give up the dualism of nature and human beings, we will not able to talk about optimisation which is no longer meaningful".

The representations and ideas of the spiritual philosophies of the East are completely different: Their worldview is essentially holistic, while conscience and creative intelligence are seen "as primary attributes of Being (...) which at the same time are transcendental and immanent to the world of phenomena" (Grof, 1986, p.13).

The result of these differences is a different way of dealing with people – and their problems: "Western science offers people with difficulties to adapt to the miserable dilemma of human existence psychological advice (medicines and ...). The spiritual philosophies of the Eastern cultures offer a broad range of spiritual techniques, which enable to recognise and experience man's own divinity and achieve liberation from suffering" (Grof, 1986, p.14).

It is likewise typical for the fascination of the Eastern spiritual philosophies that they ask completely different questions from Western philosophy, which is first and foremost interested in an extension of knowledge – as is evidenced by the incredible thirst for knowledge of the past centuries. Each area has generated a science of its own. The West, it seems, has always been interested rather in the question of the "How?" (Abegg, 1949, pp.52). These, or similar, questions have never been, and are still not, really interesting for traditional Asian thinking – because in Asia people think, ask and respond holistically. The East asks "What for?" What is this invention good for? Asia does not seek new knowledge at any cost, but the purpose or aim, the chain of events in an action, or the possible consequences of certain behaviours (Abegg, 1949, pp.52).

Since Aristotle, mankind in the West has sought to first objectivise everything subjective, e. g. through experiments, criticism and the generation of definitions, in order to subsequently "grasp" it through certain concepts and yet, at the same time, deprive it from all (its former) subjectivity. The Asian tradition stands in contrast to this: It seeks to subjectivise everything objective. It is not interested in gaining objective knowledge.

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[20] This observation may be described as a systems-oriented approach.

The subjective human world, not objectivist logic, constitutes the centre of Eastern religiosity (Wichmann, 1991/92, p.25). In the context of Asian religions, esotericism is considered to be a "methodical way to deal with the non-rational side of man and its intuitive, creative, visionary, magical energy" and always respected and recognised as a form of profound knowledge pertaining to religion (Wichmann, 1991/92, p.143).

The two opposing conceptions of the world, the universe and man reveal this: The current trend which, e. g. in esotericism and astrology, generates holistic world views which integrate all areas of human life and experience, hadits roots for thousands of years in part in the spiritual philosophies of the East. Through esotericism the rising interest in Eastern religions and the reception of Asian literature became a central theme for the West.

- **Modernity**

Against the background discussed above, the subject-matter of oriental epistemology does not seem to have much in common with what we understand as 'modernity'. The OED online (Oxford English Dictionary online) states the following under 'modernity': "An intellectual tendency or social perspective characterised by departure from or repudiation of traditional ideas, doctrines, and cultural values in favour of contemporary or radical values and beliefs (chiefly those of scientific rationalism and liberalism)".

From a sociological perspective, Anthony Giddens describes modernity as a discipline "...associated with a certain set of attitudes towards the world, the idea of the world as open to transformation, by human intervention" (Giddens 1998, 94).

This aspect of generalised change in Western cultures also includes a change from the objectivist to the subjectivist way of organising experience. The prevailing Western world view prior to the 1960s was determined by external objective factors (Wilber; Ecker; Anthony, 1995, pp.13). The sense of human life consisted in assuming and fulfilling responsibilities and in gaining a certain social status in society. The sense and value of life had nothing to do with the personal appreciation and experience of sense, but focused on positions of social hierarchy. After the 1960s this relationship had reversed for ever larger parts of the population in the Western cultures. Now the sense of human life was based on personal experience and a feeling of self-fulfilmentor the lack of such self-fulfilment. Today new needs, values, demands and services as well as more individual wellness and greater satisfaction with life, but also the desire for less insecurity, fears and sorrows, characterise this "new" phase (Opaschowski, 2002, p.127) of social change. In his research, Opaschowksi even speaks of a "crisis"or an "explicit loss of sense" in the Western world (Opaschowski, 2002, p.71) and comes to the conclusion that people once again need "orientation toward sense, bringing back support, continuity and the essentials into their lives" (Opaschowski, 2002, p.71). The "resource 'sense'" is in demand as it hadn't been for a long time (Opaschowski, 2002, p.71).

After the relevant literature was reviewed, in the following Chapter 3 the research procedure shall be presented.

Chapter 3: Research Procedure

3.1 Introduction

This chapter presents the research philosophy, the methodology used for carrying out this study and the methods considered best to address the research problem as outlined in Chapter 1. Additionally, the validity and reliability of data, the research limitations and ethical considerations are discussed in this chapter.

Research is a process of incremental steps towards answering the research questions. Building on the choice of topic, the author decided to design the research by a process of five stages. These five stages comprise:

1. The development of the two theoretical models of consulting, the management consulting system and the astrological business consulting system, based on secondary data collection.

2. The statistical verification of these two theoretical models of consulting.

3. The empirical validation of the two theoretical models of consulting, statistically verified.

4. Comparison between the theoretical models of consulting (derived from secondary data and statistically verified) and the respective empirical data (findings).

5. Confrontation between the systems, as the two empirical validated models are confronted with each other.

The research process started with a comprehensive review of the relevant literature, aiming to look for the system-relevant key factors and their structure within the respective consulting system. In this stage of theory building, an exploratory as well as a descriptive type of research was employed. By applying an exploratory research type, the author aimed to look for ideas and patterns to construct the hypotheses with regard to the consulting systems to be tested. This research type was supported to an even greater extent by a descriptive type in order to identify and classify the elements inherent in the systems (system-relevant key factors) and the structure which they form within the two systems. Hence, an inductive and a basic research approach are embedded in this stage of the research process. An inductive approach is used to move from particular information, ideas, reports to construct the hypotheses mentioned above and a basic approach to generally improve knowledge. The secondary data collection involves a mixture of qualitative and quantitative approaches. The knowledge acquired from this secondary data collection comes from multi-disciplinary but scientific sources. The reliability and validity of secondary data from scientific literature is generally accepted. Subsequent to the theory-building process regarding the two models of consulting, their statistical verification followed in stage two.

From the author's view, this step was necessary because of the varying findings resulting from the secondary data collection. After statistically verifying the two models, their empirical validation was effected by performing primary data research (stage three). In this context, the author basically took up the philosophical position of positivism, even if elements of qualitative work from participant observation might be identified in this primary data research representing an interpretivistic stance.

This primary data collection represents a deductive and a quantitative research approach mixed with qualitative components by using survey research as research method. In stage four each of the two models derived from the literature is compared with the respective empirical data. The research question is then processed by means of a confrontation between the systems, as the two empirical validated models are confronted with each other.

The following statements regarding the research philosophy, the methodology and the methods used for carrying out this study refer to the process of primary data research.

3.2 Research Philosophy

It is important to consider different philosophical positions when undertaking research. Since matters of ontology, epistemology and human nature as well as research philosophies describe perceptions, beliefs, assumptions, the nature of reality and/or the knowledge of that reality, they can affect the researcher's approach to philosophical issues and hence influence the methodology of research, the way in which the research is conducted from the design through to the conclusions. If these underlying assumptions are not identified and considered, the researcher may be blinded to certain aspects of the inquiry or certain phenomena, since they might be implicitly assumed, taken for granted and therefore not opened to question, consideration or discussion. It is therefore important to be aware of these philosophical aspects before research activities are started.

It is, however, beyond the scope of this work to present a comprehensive philosophical framework. This section is rather focused on giving a brief overview of the main philosophical positions which might be considered alternatively when reflecting on the best and most appropriate way of conducting research. For a thorough discussion on philosophical dimensions, traditions and their respective assumptions, the reader is referred to Burrell&Morgan (1979).

- **Basic Philosophical Positions**

The first philosophical assumption which it is important to reflect in this context is that of ontology. Ontology relates to the nature of reality, that is, what constitutes reality, what things, if any, have existence or whether reality is "the product of one's mind" (Burrell & Morgan, 1979, p.1). It is mainly concerned with the question and/or discussion of how individuals (and groups) determine these realities: does the reality exist only through the experience of it (subjectivism), or does it exist independently of those who live it (objectivism). Ontology can affect the researcher's view of reality and may be identified as the corner stone to all other assumptions which predicates the researcher's other assumptions.

The second assumption, epistemology, concerns the study of the nature of knowledge, that is, what constitutes knowledge of reality, how it is possible, if indeed it is, for us to gain knowledge of the world (Hughes & Sharrock, 1997, p.5). It is concerned with the nature, validity and limits of inquiry. Much of the research which has been completed in organisational and economic studies has been based on the assumption that reality is objective and 'out there' waiting to be discovered and that this knowledge can be identified and communicated to others.

The third assumption, concerning human nature, involves whether or not the researcher perceives man as the controller or as the controlled being (Burrell & Morgan, 1979).

Whatever the researcher's sociological persuasion is, he or she might recognise that these assumptions are consequential to each other, that is, their view of ontology affects their epistemological persuasion which, in turn, affects their view of human nature, and consequently, affects/influences the choice of methodology.

- **Research Philosophies**

Selecting the most appropriate methodology for conducting research implies awareness of a basic philosophical set of beliefs, formed from the philosophical assumptions of ontology, epistemology and human nature, which guides the action of research (Denzin&Lincoln, 2005). This guiding set of beliefs might be designated as a collection of research paradigms or research philosophies which comprise different research approaches. These research approaches are variously labelled in literature. Often they are called objectivist, subjectivist and realist or described as positions of positivism, phenomenology and realism or entitled positivist, interpretivist (or constructivist) and realist.

Regarding the philosophical position of positivism, it is derived from that of natural science and is characterised by the testing of hypothesis developed from existing theory (hence deductive or theory testing) through measurement of observable social realities. Representatives of this perspective presume that the social world exists objectively and externally, that knowledge is valid only if it is based on observations of this external reality and that universal or general laws exist or that theoretical models can be developed which are generalisable, can explain cause and effect relationships, and which lend themselves to predicting outcomes.

This research philosophy is based upon values of reason, truth and validity and there is a focus purely on facts, gathered through direct observation and experience and measured empirically using quantitative methods such as surveys, experiments and statistical analysis (Blaikie, 1993).

The interpretivistic approach presumes that there are multiple realities (Denzin&Lincoln, 2005). Since knowledge is relative to the addressee, the interpretivist researcher aims at working alongside others as they make sense of, draw meaning from and create their realities in order to understand their points of view and to interpret these experiences in the context of the researcher's experience. Hence, the interpretivist's attitude is of a subjective nature and can be characterised by theory building and thus recognised as an inductive research approach. The focus of this perspective lies on understanding human behaviour, the meanings and interpretations of 'social actors' and on understanding their world from their point of view. Research methods are therefore chosen with a view to trying to describe, translate, explain and interpret events from the perspectives of the people who are the subject of the research.

The philosophical perspective of realism takes aspects from both positivist and interpretivist positions. It holds that real structures exist independently of human consciousness, but that knowledge is socially created, and that our knowledge of reality is a result of social conditioning. According to Blaikie (1993), whilst realism is concerned with what kinds of things there are, and how these things behave, it accepts that reality may exist in spite of science or observation, and so there is validity in recognising realities which are simply claimed to exist or act, whether proven or not. Realists presume that researching from different angles and at multiple levels will all contribute to understanding since reality can exist on multiple levels and hence realism may be seen as inductive or theory building.

- **Philosophical Research Approach for Purposes of this Study**

During the preparation of this investigation it emerged that just one of the two main research philosophies, either the positivistic or the interpretivistic position, could be considered to be the most suitable philosophical approach to this research. The author believes that people do respond to stimulus or forces, rules (norms) external to themselves and that these can be discovered, identified and described using rational, systematic and deductive processes.

In its empirical phase, the study aims to test the two models of consulting which were developed in a theory-building process. It is about looking for the system-relevant key factors and the structure which they form within the respective consulting system. Therefore a positivistic stance was basically considered to be the best philosophical research approach for the purposes of this study. However, as qualitative work from participant observation was conducted in the empirical phase of this investigation, the study also contains a phenomenological position.

3.3 Research Methodology

Research methodology can be labelled as a way to systematically solve the research problem. It might be described as the design process for carrying out research or the development of a procedure solving the problem in question. Research methodology should offer the theoretical underpinning for understanding which logic behind the methods the researcher uses in the context of the study and for explaining why the researcher uses a particular method or technique. This research methodology chapter details the strategy and the design being employed as well as the logic behind them. In the subsequent Section 3.4 the author then describes the methods which were applied to answer the research question.

- **Research Strategy**

Saunders (2003, p. 90) describes the research strategy as a general plan of how the researcher will set about answering the research question which was posed. Yin (1994) and Flick (2004) opine in more detail that the decision regarding an appropriate research strategy depends on the form of the research question, the available control over behavioural events and the extent of focus on contemporary events.

The research question of this investigation deals with the issue of whether astrological consulting can be identified as an applicable consulting approach in the area of business consulting. To answer this research question a strategy needs to be chosen which enables the author to present two business consulting models, management consulting as a reference concept in business consulting on the one hand, and the concept of astrological consulting on the other hand, both models based on existing knowledge and on a general view of the possibilities of comparing one with the other. In this context two issues arose:

First the author had to decide on the theoretical background against which he wanted to work out the study and second, on the design which he wanted to set up in order to achieve a solution to the research problem. As to the first point of the strategic consideration, which theoretical way is best suited to be treated, the author decided to take the realm of systems thinking into his further account as the theoretical basis of departure. Both consulting concepts are to be understood as systems. Hence, the second data research focuses on already existing knowledge which is particularly concerned with the domain of systems thinking and its related disciplines.

As to the second issue, how to set up an appropriate design for the investigation, the author decided to divide the research work basically into two main parts:

1. A theoretical part where the two consulting concepts in question are developed as system models based on secondary data research.

2. An empirical part in which the findings from secondary research are verified by practice.

- **Research Design**

It is the hypothesis of this research work that each of the two business consulting concepts can be determined as a consulting system by its respective system-relevant key factors and their interrelations within the system. The system-relevant key factors and their interrelations together form the structure of the system.

Research can be understood as a process of incremental steps towards answering the research questions. Following the research strategy, the author designed the research by means of a process of five stages. The five stages comprise:

1. Development of the systems of management consulting and astrological business consulting as theoretical models of consulting, collected by secondary data.

2. Statistical verification of the two consulting systems.

3. Empirical validation of the two consulting systems statistically verified.

4. Comparison between the theoretical models of consulting (derived from secondary data and statistically verified) and the respective empirical data (findings).

5. Confrontation between the systems, as the two empirical validated models are confronted with each other.

3.4 Research Methods

This section presents the methods which are suitable for conducting this research.

While research methodology is a way to systematically solve the research problem, research methods may be understood as all those methods and techniques which are used for conducting the research work. Research methods or techniques refer to the methods which the researcher uses in performing research operations. Or, in other words, all those methods which are used by the researcher during his/her course of studying the research problem are termed as research methods. Research methods might be put into the following three groups:

1. The first group contains methods which are concerned with the collection of data. These methods will be used where the data already available is not sufficient to arrive at the required solution.

2. The second group consists of those statistical methods/techniques which are used for establishing relationships between the available data and the unknown aspects of the problem.

3. The third group comprises those methods which are used to evaluate the accuracy of the results obtained.

As mentioned above in the methodology section 3.3, the author decided to divide the research into two main parts. On the one hand, the two consulting concepts are theoretically developed as system models based on secondary data collection and, on the other, the outcome from the secondary research is to be validated by practice (primary data collection). The findings from each of the collections, the secondary data and the primary data, are statistically analysed. The analyses were conducted by using mathematical statistics. The methods of data collection can be assigned to the group one, whereas the methods of data analysis are regarded as belonging to group three.

The following statement outlines the research methods employed to conduct the investigation.

3.4.1 Secondary Data Collection

The secondary data research started with a search for articles and books containing useful information on the concepts of management and astrological business consultancy. A more intensive literature review was then made to identify those elements of the two consulting systems which are recognised as system-relevant key factors. As the Networked Thinking approach employed in this work dates from the 80s and 90s, the literature review is focused on these periods to a certain extent, but where appropriate and necessary, also new literature was considered.

The sources for the literature review likewise consisted of books and articles on the discipline of systems thinking and the concepts of management and astrological consulting. Whether it concerned books, articles or websites, attention was paid to the perceived reliability of the source and academic contents. Books and articles which merely gave guidelines about how to deal with a certain issue were not used unless they provided references or the information was consistent with other sources. Websites were only used if the source of the information was clear and was considered reliable for the kind of information sought.

Subsequent to the theory-building process regarding the system models, the role structure of the system-relevant key factors was verified by mathematical statistics. From the author's point of view, this step was necessary because of the different views found in the literature and the varying findings resulting from the secondary data collection. After analysing statistical analysis of the structure of the two models, their empirical validation was carried out by performing primary data research.

3.4.2 Primary Data Collection

3.4.2.1 Aim and Objective

As hardly any other profession, consultants within the context of management consulting are facing increasing complexity of work. This applies particularly to astrological business consulting, which uses rather unconventional methods to solve problems in enterprises. Such methods are not easily reconcilable with rational and methodical problem solving as generally associated with management consulting.

One glance at the practice, however, reveals that many enterprises currently rely upon astrological business consulting. This is the case especially with U.S. and Asian enterprises, which are apparently willing to tread also unusual paths, if such paths promise economic success. The economic significance arising from such practice is nonetheless in contrast with economic reconditioning. Among other things, this present work aims to close this gap and elaborate a scientific basis providing a possibility to assess the significance which the astrological consulting market actually has in the field of business consulting. But the information available in the area of business consulting is ambivalent; particularly with regard to astrological consulting there is hardly any information concerning influence factors.

The situation is similar in respect of management consulting. Although literature and practice provide a lot of information concerning the factors influencing the management consulting system, no work could be found which in a holistic manner shows what factors impact that system and how the influence behaviour of such factors operates within the management consulting system.

Such is the background to understand the objective of field research. With this present work the author examines whether the influence factors and determinants of the two subsystems, those of management consultants and astrological consultants, as identified on the basis of secondary data, withstand validation by the reality of practice.

From this, particularly the following objectives for an empirical examination may be derived:

> A survey regarding relevant influence factors (key factors) concerning the management consultant and astrological consultant subsystems, from the perspective of those very management consultants and astrological consultants.

> A survey of opinions and assumptions regarding the influence behaviour of those key factors in the management consultant and astrological consultant subsystems with regard to one another, from the perspective of management consultants and astrological consultants.

> The acquisition of knowledge and the building of a basis for further research works within the scope of applicability of astrological consulting in the area of business consulting.

3.4.2.2 Design

Based upon the objectives derived in the preceding section 3.4.2.1, the following design emerges for the primary data collection below:

(1) Analysis of key factors within the management consultant and astrological consultant subsystems from the perspective of practice.

The question here is: from a practice-oriented perspective, which key factors for the management consultant and astrological consultant subsystems are considered to be system-relevant?

(2) Analysis of the influence behaviour of the key factors within the management consultant and astrological consultant subsystems and derivation of the role structure within these subsystems.

The question here is: What is the influence behaviour of the key factors considered to be system-relevant among one another within the management consultant and astrological consultant subsystems?

(3) Analysis of determinants within the management consultant and astrological business consultant subsystems.

The question here is: Which (independent) key factors determine the management consultant and astrological business consultant subsystems?

(4) Validation of the theoretically identified system-relevant key factors within the management consultant and astrological business consultant subsystems on the basis of an empirical survey.

The question here is: Are the theoretically identified key factors within the management consultant and astrological business consultant subsystems from a practical perspective identical to those obtained empirically?

(5) Validation of the roles of theoretically identified system-relevant key factors within the management consultant and astrological business consultant subsystems, based on the empirically obtained primary data.

Is the theoretically determined role structure of key factors within the management consultant and astrological business consultant subsystems identical to that established empirically?

(6) Validation of the theoretically derived determinants within the management consultant and astrological business consultant subsystems, based on the empirically obtained primary data.

Are the theoretically identified determinants within the management consultant and astrological business consultant subsystems identical to the empirically established determinants?

(7) Additionally, the author analyses whether the management consultant and astrological business consultant subsystems exhibit significant discrepancies regarding the determinants.

The hypothetical management consultant and astrological business consultant subsystems developed shall rightfully be assigned model character once their validity in respect of the real management consultant and astrological business consultant subsystems has been proven. Therefore a valid model requires that it consists of a suitable (in the sense of useful but not necessarily precise) representation of the system to be examined (Liebl, 1995, p. 199).

3.4.2.3 Survey Research as Suitable Research Method

3.4.2.3.1 Introduction

The two subsystems, which have been theoretically developed based on quantitative and qualitative research work, expert interviews and own experience, shall be subjected to practical validation. The result will be two models verified by experts. In order to achieve this goal the author shall firstly choose a suitable research strategy for validation. Yin (1994, p.6) provides generally applicable recommendations for concrete research strategies to be chosen, as represented in Table 8.

Table 8: Relevant Situations for Different Research Strategies
(source: Yin, 1994, p.6).

Strategy	Form of research question	Requires control over behaviourial events?	Focuses on contemporary events?
experiment	how, why	yes	yes
survey	who, what, where, how many, how much	no	yes
archival analysis	who, what, where, how many, how much	no	yes/no
history	how, why	no	no
case study	how, why	no	yes

In the examination to be carried out, the researcher will not have any possibility of control with regard to the results obtained. Validation focuses on contemporary events and seeks to document the contemporarily available opinions of the persons surveyed. Consequently, according to the scheme by Yin, only a survey or case study may be used as strategy. Further selection from these two research strategies allows a closer look at the research questions to be answered: The validation of interactions and the determination of intensity show clearly that we have to do this with a relative quantification of factors ("how many", "how much"). Likewise, the categorisation of the influence behaviour of system factors, no matter whether these are composed of persons (consultant, client; "who") or objects (such as the use of electronic media; "what"), favours the conducting of a (written) survey as the adequate data collection tool and hence survey research as suitable research method. In this context, Isaac&Michael (1997, p. 136) state that survey research is used: "to answer questions that have been raised, to solve problems that have been posed or observed, to assess needs and set goals, to determine whether or not specific objectives have been met, to establish baselines against which future comparisons can be made, to analyse trends across time, and generally, to describe what exists, in what amount, and in what context." Against the research method of case study one might adduce that it usually operates with open questions, which makes the qualified assessment of results more difficult or, given the researcher's subjective interpretations, possibly distorts these results.

3.4.2.3.2 The Delphi Method as Interviewing Technique

In the previous section survey research was identified as a suitable research method. This thesis aims to validate the system elements of the subsystems management consultant and astrological consultant by practice. The expert statements may lead to confirmation, modification or denial of the theoretically derived management consultant and astrological consultant subsystems. However, the survey also aims to examine any discrepancies in the opinions of interviewees by means of descriptive statistics. This assessment, which compares the theoretically obtained appraisals, may shed light on important differentiations in the interviewees' opinions and hence provide hints for situational differences in the shaping of the consulting process to be considered.

The unveiling of assessment differences and a test of the general validity of the system elements identified are the objectives of the survey. This aim cannot necessarily be achieved through a one-time collection of expert opinions since a one-stage procedure may result in significant differences concerning individual influences, in consequence of which the two subsystems management consultant und astrological consultant could then possibly not be unambiguously modelled for the further research process. In a second interview situation, in cases of discrepancies the author shall therefore possibly – though not mandatorily – reach a consensus among all expert opinions. However, complete coverage of the universe of all consultants will not be possible.

Nonetheless, the validation tool should, by means of low-volume investigations, provide representative and significant results. In order to achieve a truthful validation of statements the survey must be conducted anonymously. The validation tool should therefore support an anonymous survey.

Basically, possible survey alternatives for realising and/or evaluating the validation are high-volume surveys with multivariate analyses for assessment (Backhaus, Erichson, Plinke, Weiber, 2000) and expert interviews.

High-volume surveys and the use of multivariate procedures for data assessment are characterised by the fact that they require a relatively large number of interview results for the application to be significant. The empirically significant sample should allow for conclusions regarding the universe. Basically, the assessment of several surveys and consensus-building according to the requirements may be realised through multivariate analyses. Also, anonymous interviews do not constitute any obstacles for multivariate procedures. However, given the access barrier and the need for high-volume results, the use of multivariate data assessment procedures should be critically viewed.

With regard to the second alternative, the expert interviews, the author examines in the following the Delphi survey (Delphi interviewing technique) as regards its suitability concerning the research aim, which does not establish any restrictions concerning the volume of participants.

During a review of content definitions and characteristics of the Delphi survey in the literature an array of diverse works are found. In a more general view, the Delphi survey might be characterised as a method for structuring a group communication process so that the process is effective in allowing a group of individuals as a whole to deal with a complex problem. For a comprehensive view of the different approaches and conceptions of the Delphi survey, the author refers to Häder (2002, pp.19).

The process of the Delphi survey today exists in two forms, the paper-and-pencil version, which is the most common and is generally referred to as a "Delphi Exercise." In the Delphi Exercise process a small monitor team designs a questionnaire which is sent to a larger respondent group, After the questionnaire is returned the monitor team summarises the results and, based upon the results, develops a new questionnaire for the respondent group. The respondent group is usually given at least one opportunity to re-evaluate its original answers based upon an examination of the group response (Linstone&Turoff, 2002).

A more recent form, often called a "Delphi Conference," shifts the analysis work of the monitor team to some extent to a computer which has been programmed to carry out the compilation of the group results. This latter approach has the advantage of eliminating the delay caused in summarising each round of Delphi, thereby turning the process into a real-time communications system. However, it does require the characteristics of the communication to be well defined before Delphi is undertaken, whereas in a paper-and-pencil Delphi exercise the monitor team can adjust these characteristics as a function of the group responses (Linstone&Turoff, 2002).

The Delphi process, no matter whether it is conducted conventionally or real-time, is usually designed for four phases. The first phase can be characterised by exploration of the subject under discussion, wherein each individual contributes additional information which he or she feels is pertinent to the issue. The second phase involves the process of reaching an understanding of how the group views the issue (i.e., where the members agree or disagree and what they mean by relative terms such as importance, desirability, or feasibility). If there is significant disagreement, then that disagreement is explored in the third phase to bring out the underlying reasons for the differences and possibly to evaluate them. The last phase, a final evaluation, occurs when all information previously gathered has been initially analysed and the evaluations have been fed back for consideration.

Based on the survey goals, Häder (2002, pp.30) derived four specific Delphi subtypes. Delphi surveys for the aggregation of ideas use expertise to elaborate (preliminary) proposals for problem-solving regarding a certain topic. Delphi surveys for forecast which is as precise as possible of an uncertain issue help gain better clarity with regard to certain aspects. Closely related to this is the third type of Delphi surveys towards the determination and qualification of opinions by an expert group in respect of a vague issue. The central point here is to determine the opinion of a concretely definable group of experts. The last type comprises Delphi surveys for consensus-building among participants, which deliberately initiates group processes as a result of feedback. This aims on one hand to qualify the survey result, and on the other to create consensus among the participants which is as far-reaching as possible.

These four Delphi types may be assigned specific characteristics, which have been summarised in Table 9.

Table 9: Comparison of Delphi method types (source: Häder, 2002, p.36).

	Type 1: Aggregation of ideas	Type 2 Detemination of an uncertain issue	Type 3 Determination of expert opinions	Type 4 Consensus
Targets	gathering ideas to solve problem	enhanced determination of issue (forecasts)	determination and qualification of expert opinions	high degree of coincidence in participants
Orientation	qualitatively designed	qualitative and quantitative proceeding	qualitative and quantitative proceeding	qualitatively designed
Operationalisation of investigation object	hardly any operationalisation, partly simply indication of thematic area to be worked on	issue to be worked on must be defined as precisely as possible		strongly differentiated operationalisation of issue to be worked on
Type of question and evaluation	open questions	open and especially closed questions		solely standardised evaluations
Selection of experts	selection of experts based upon expertise	hypotheses required to identify experts, no formalised rules	universal survey or deliberate selection of experts	selection of participants may occur within a definable framework

Although there are traditional survey proceedings to gather input from members of the consultant community, the Delphi survey is regarded as a stronger data collection tool for a rigorous query of experts. In Table 10 the strengths and weaknesses of a Delphi survey versus the traditional survey approach are compared.

Table 10: Comparison of the Delphi survey with traditional survey
(source: Okoli&Pawlowski, 2004, p.19 - adopted and slightly changed).

Criteria of evaluation	Delphi survey	Traditional survey
Process	The researcher designs a questionnaire with questions relevant to the issue of study. After having designed the questionnaire, the researcher selects an appropriate group of experts who are qualified to answer the questions. The researcher then administers the survey and analyses the responses. If necessary, e.g., because of the differing / varying feedback, another survey based on the previous responses is designed to the first one and readministers it, asking respondents to revise their original responses and/or answer other questions based on group feedback from the first survey. The researchers reiterate this process until the respondents reach a satisfactory degree of consensus. The respondents are kept anonymous to each other (though not to the researcher) throughout the process.	The researcher designs a questionnaire with questions relevant to the issue of study. There are numerous issues concerning validity of the questions they must consider to develop a good survey. The questionnaire can include questions that solicit quantitative or qualitative data, or both. The researcher decides on the population that the hypotheses apply to, and selects a random sample of this population on whom to administer the survey. The respondents (who are a fraction of the selected random sample due to non-response by some) fill out the survey and return it. The researcherss then analyses the usable responses to investigate the research questions.
Sample size	The Delphi group size does not depend on statistical power, but rather on group dynamics for arriving at consensus among experts. There is no agreement on the panel size for Delphi studies, nor recommendation or unequivocal definition of small or large samples.	Because the goal is to generalise results to a larger population, the researcher needs to select a sample size that is large enough to detect statistically significant effects in the population. Power analysis is required to determine an appropriate sample size.
Sample representativeness	The questions that a Delphi survey investigates are those of uncertainty and speculation. Thus a general population, or even a narrow subset of a general population, might not be sufficiently knowledgeable to answer the questions accurately. A Delphi study is a virtual panel of experts gathered to arrive at an answer to a difficult question. Thus, a Delphi study could be considered a type of virtual meeting or as a group decision technique, though it appears to be a complicated survey.	Using statistical sampling techniques, the researcher randomly selects a sample that is representative of the population of interest.
Reliability and validity	Pretesting is also an important reliability assurance for the Delphi method. However, test-retest reliability is not relevant, since researcher expect respondents to revise their responses. In addition to what is required of a survey, the Delphi method can employ further construct validation by asking experts to validate the researcher's interpretation and categorisation of the variables. The fact that Delphi is not anonymous (to the researcher) permits this validation step, unlike many surveys.	An important criterion for evaluating surveys is the reliability of the measures. Researcher typically assures this by pretesting and by retesting to assure test-retest reliability. Construct validity is assured by careful survey design and by pretesting.
Richness of data	In addition to the richness issues of traditional surveys, Delphi studies inherently provide richer data because of their response revision due to feedback. Moreover, Delphi participants tend to be open to follow-up interviews.	The richness of data depends on the form and depth of the questions, and on the possibility of follow-up, such as interviews. Follow-up is often limited when the researcher is unable to track respondents.
Anonymity	Respondents are always anonymous to each other, but not anonymous to the researcher. This gives the researcher more opportunity to follow up for clarifications and further qualitative data.	Respondents are almost always anonymous to each other, and often anonymous to the researcher.

Against the background of the explanations of the Delphi survey given above, it seems to be a very simple data collection method easily employable in research. This impression might be hardened when the researcher thinks of the panel size on which there is not any agreement to be found in literature. On the other hand, there are individuals who have had disappointing experiences with the Delphi method. By screening the relevant literature, it was obvious that most of the critics argue against the definition of when consensus is reached, the scientific validation of the findings and the consensus approach more generally. Some of the objections raised shall be reproduced in the following below:

- The consensus approach runs the risk of leading to a watered down version of the best opinion (Sackman, 1975).
- The Delphi method generates only bland statements which represent the lowest common denominator (Rennie, 1981).
- Poor techniques of summarising and presenting the group response and ensuring common interpretations of the evaluation scales utilised in the exercise (Linstone&Turoff, 2002).
- Ignoring and not exploring disagreements, so that discouraged dissenters drop out and an artificial consensus is generated (Linstone&Turoff, 2002).
- There seem to be no firm rules for establishing when consensus is reached (Linstone&Turoff, 2002).
- Most Delphi studies lack clarity about the framework in which the findings are to be judged (Powell, 2003).
- Delphi studies are often oblivious to reliability measurements and scientific validation of the findings (Sackman (1975).
- Not open to the same validation criteria as hard science, because the method is intended to correct for lack of conclusive data by drawing on, and sharing, the knowledge and experience of experts (Fink et al. 1991).
- The convergence of opinion is usually comparatively slight (Murphy et al., 1998).

It was by balancing the weakness of the Delphi method with the reasons given below that the author decided to selected the Delphi method as an appropriate data collection tool:

1. The main advantage of the Delphi survey is reported to be the achievement of consensus in a given area of uncertainty or lack of empirical evidence (Delbecq et al. 1975, Dawson&Barker 1995, Murphy et al. 1998). This research work aims to hypothesise by theory-building that each of the two business consulting concepts can be determined as consulting systems on the basis of certain system-relevant key factors. There is, however, to some extent uncertainty in this hypothesis that consulting systems representing dynamic concepts can even be determined by a certain number of key factors not varying over a certain period of time.

2. Murphy et al. (1998) note that Delphi participants bring a wide range of direct knowledge and experience to the decision-making processes. This thesis is an research study into system-relevant key factors which form both the system of management consulting and the system of astrological business consulting. This complex issue requires the knowledge of people who understand that kind of consulting activities. Thus, a Delphi study answers the study questions more appropriately.

3. A panel study most appropriately answers the research questions, rather than any individual expert's responses. Delphi is an appropriate survey tool, based on group dynamics. Delphi technique does not require the experts to meet physically, which could be impractical for international experts (Jones et al., 1992).

4. Already at the beginning of this PhD project it had become clear that the first data collection could not be a census since such an undertaking would exceed the author's financial, personal and temporal possibilities. As there might be a relatively limited number of experts with knowledge regarding the research questions, the Delphi technique seems to be appropriate to conduct this research panel, since the panel size requirements are modest.

5. In its design the Delphi study is flexible and amenable to follow-up interviews. This permits the collection of richer data leading to a deeper understanding of the fundamental research questions.

6. Basically, even with a small number of participants, significant statements may be derived. Also, the Delphi technique includes special concepts designed for multi-stage procedures and aiming at reaching consensus among potentially differing expert opinions. It therefore especially suits the research aim; in it, the confrontation of experts with the opinions of other experts was explicitly considered. Furthermore, the core idea of the Delphi survey is based on an anonymous conducting of interviews.

3.5 Validity and Reliability of Data

If we want to acquire new knowledge, terms such as validity and reliability are involved. Validity and reliability are about the quality of data and the appropriateness of methods used in social science research. As researchers have different philosophical and methodological approaches to the study of human activity in different contexts, the research work needs to justify the quality of the data and the appropriateness of the methods used.

The survey to be conducted contains both qualitative and quantitative elements. But as a statistically significant selection of all management and astrological consultants can be made and thus the survey does not constitute a high-volume investigation, it must be classified within qualitative research, as it seeks an understanding of observable elements of reality. Its result is an analytical although not statistical generalisation of the observations made. Thus a total of three quality criteria must be distinguished: internal and external validities, and reliability. However, perfect validity and reliability are ideal conceptions never achieved in practice. Thus, these criteria constitute theoretical survey characteristics and the corresponding coefficients and figures are usually not calculated. Nevertheless, there are possibilities of furthering the reliability and validity of a survey (Cropley, 2002, pp.30).

Therefore, in the following the author takes a closer look at the three criteria in order to derive requirements for a qualitative enhancement of the survey.

Internal validity refers to the probability that the correlations among variables found in the survey are causal and not only apparent (Cropley, 2002, p.29). Thus it must be excluded that as a result of the survey false hypothetical assumptions are postulated while other alternative hypotheses are correct. One possibility of enhancing internal validity constitutes so-called pattern matching, which compares theoretically postulated interactions to findings obtained from the empirical examination (Yin, 1994, p.33).

This present study carries out such a comparison. The theoretically deduced findings from the secondary data research will be compared to the results from the expert interviews. In the event of the theoretically obtained interactions not being confirmed by the expert survey, the consequence will be a corresponding revision of the management consultant and astrological consultant subsystems.

External validity tests to what extent survey findings can be generalised (Yin, 1994, p.35). It hence describes the degree of transferability of findings to new environments (Cropley, 2002, p.30). The investigation to be carried out aims at extending hypothetical assumptions regarding the influence behaviour and generalising such assumptions for the management consultant and astrological consultant subsystems.[21] It does not seek to determine and statistically generalise frequencies.[22]

This is the reason why the author proceeds pursuant to the logics of analytical generalisation, i. e. if there is participant affirmation in respect of a certain interaction, the author assumes the general validity of the interaction. In this sense, each individual participant‘s statements could be interpreted as an additional test (replication) of the respective theoretical assumption. Confirmation of assumptions of the theoretical model by a majority allows a deduction of the general validity of individual interactions in practice. However, the procedure does not allow a deduction of statistical frequencies concerning their existence within the universe.

Kvale (1996) proposes usefulness as a further criterion. By this he addresses the question whether the results can or cannot be transferred into practice and hence provide benefits for research and practice. For this present study the author states that the consulting models arising from the survey are a contribution to consulting research. Furthermore, Lincoln&Guba (1985) point out credibility as a criterion of external validity, meaning that the findings should be correspondingly comprehensible for peer audiences. This condition is met by transparency in the presentation of the procedure which is as high as possible as well as a full publication of individual findings. However, since the survey contains confidential information and the participants were guaranteed anonymity, these are reproduced anonymously.

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[21] Also referred to as the so-called “analytic generalisation” (cf. Yin, 1994, p.10).

[22] Also referred to as the so-called “statistical generalisation” (cf. Yin, 1994, p.10).

The reliability of a survey means its degree of accuracy. Hence, it measures the probability that a repetition of the survey would reach the same results. The practical importance of reliability is rooted in the fact that generalisations may be deduced only from reliable findings (Cropley, 2002, p.29). Hence, reliability is an important precondition for validity. Altheide&Johnson (1998) think that reliability is also equivalent to stability, thus addressing the aforementioned condition that a repetition of the procedure should lead to the same result. Lincoln&Guba (1985), referring to the related criterion of "confirmability" point to the researcher as the centre of attention, stating that a different researcher would have to reach the same result. An alternative solution could be to make the documentation of results and the conclusions drawn from them available to other researchers.

Reliability and validity may additionally be increased by comparing individual and group results with one another. This will be considered later in the result assessment in taking into account not only the total of all results but also the scattering of opinions of all participants and/or the different perception within the groups.

In summary, the three quality criteria and the conditions for the research design arising from these are reproduced in Table 11.

Table 11: Quality criteria for the research design (source: own depiction).

Quality criterion	Resulting requirements	Research phase having to consider the requirement
Internal validity	explanation and/or paraphrasing of terms	survey design, oral explanations and options of further inquiries
	survey pre-test with volunteers and, if necessary, modification of contents	survey pre-phase
	pattern matching	data analysis
External validity	replication logic in case of more than one participant	survey design
	assurance of practical applicability of results	practical applicability of models of reference
	high transparency in presentation of procedure and results	data analysis and result documentation
Reliability	transparency of partial results	data analysis and result documentation
	inter/intra comparison of results	data analysis

The conditions elaborated are consequently considered in the conception of the survey structure and process.

3.6 Research Limitations

This paragraph will set out the major research limitations encountered during the secondary and primary data collection.

- **Secondary research**

One of the major limitations to the secondary research was the accessibility of sources. Although the author was able to locate many useful sources, it was very difficult to locate literature on astrological business consulting, which was considered to be very valuable to the research. Although it is to be expected that not all sources can be retrieved, this was considered a limitation to the secondary research and a loss of potentially valuable information.

- **Primary research**

Problems which were encountered during the primary research were mostly related to the accessibility of the persons (experts) who were needed for the validation process of the secondary data. The fact that the primary data collection was conducted by using the Delphi technique as a suitable research method made it difficult to contact and to reach the right experts because either their contact details were not easy to find out, or they were in a busy period and had no time to participate in the survey. When some consulting companies were phoned to ask if their consultants had received the questionnaire, it appeared that many emails had never arrived or had been forwarded to someone who was on holiday or not a consulting expert.

The author recognises that the sample of 22 experts who participated in the survey research is very small and therefore the conclusions are rather limited. As this is an exploratory research it is not the aim at the outset to make conclusions based on statistical facts but it is the idea to make tentative conclusions which can be used to establish whether any further research would be feasible.

3.7 Ethical Considerations

This section aims to stress the importance of ethics in the research project. Ethics and confidentiality are an important issue when conducting a research project.

Ethical concerns may emerge at all stages of research. Saunders et al. (2003, p.131) summarise the main issues to consider, although the ethical issues surrounding these items are not always clear-cut:

(1) Rights of privacy of individuals.
(2) Voluntary nature of participation and the rights of individuals to withdraw partially or completely from the process.
(3) Consent and possible deception of participants.
(4) Maintenance of the confidentiality of data provided by individuals or identifiable participants and their anonymity.
(5) Reactions of participants to the ways in which researchers seek to collect data.
(6) Effects on participants of the way in which data is analysed and reported.
(7) Behaviour and objectivity of the researcher.

Ethical behaviour goes further than simply assuring the confidentiality of the data and involves a mutual understanding of the reasons and the expected outcomes driving the research project. Therefore, at the time of contacting the experts, a covering letter was included to ensure that those who agreed to participate in the study were aware of the aims of the study and the expected outcome. A basic introduction and an explanation of the rationale behind the research project were given in the covering letter. In addition, respondents were offered a copy of the results once the research project was completed.

3.8 Approach

3.8.1 Development of the Theoretical Models: The Systems of Management Consulting and Astrological Business Consulting

In the following, the author explains the approach of development of the two consulting models, the management consulting and the astrological business consulting model.

Systemic thinking means an understanding of processes and situations as a whole in order to thus obtain a networked and holistic view of the problem in hand. Often systemic thinking is labelled as "holistic", i. e. linked to holistic thinking (Vester, 1980, 2003).

As with all soft skills, also the ability to systemic thinking may be examined at three levels: the mental level, the models level and the methods level:

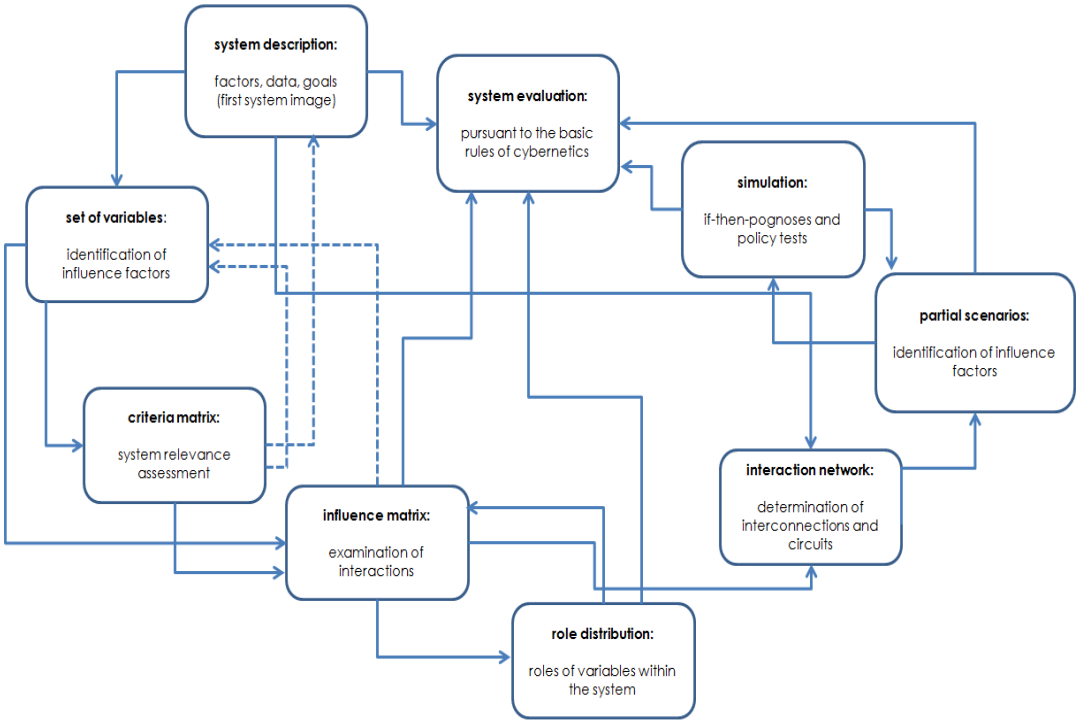
- The mental level considers the ideas or conceptions of individuals to understand e. g. the enterprise, the division, the team and the market as such as a system. Also the belief and/or knowledge in respect of the influence of even minimal changes belong here, as well as the conviction that small changes in a system are capable of modifying the system. Both mental aspects further an individual's motivation to take the initiative, to act themselves, and to start with themselves in order to achieve the changes to which they aspire.

- The level of models and concepts deals with the knowledge about positive and negative feedbacks, critical system and indicator variables, system-inherent dynamisms, the human tendency to over-steer, the interdependence of variables and targets, as well as circularity of communication and relationships.

- On the methods level the following might be mentioned: the ecology check, a concept borrowed from NLP (Neuro Linguistic Programming).

Relevant problems in complex systems are not objectively given but must be investigated. The procedure models by Vester (1980, 2003) and Gomez&Probst (1999,2004) which methodically support the research of complex systems, all basically exhibit similar structures. Vester (1980, 2003) describes a total of 9 partial steps, while the other authors' model contains 5 partial steps. Partly, Vester's detailed steps are summarised in the other authors' procedural steps.

Figure 17: Procedure to understand a complex system: recursive structure (source: Vester, 2003, p.199).



This thesis uses a procedure model adapted to the research object containing five partial steps, described in detail in the following. These partial steps should not necessarily be understood as sequential but rather as an iterative, networked whole process. The procedure also may be applied recursively; i. e. subsequent modifications of previous results are explicitly considered in the procedure methodology. Nonetheless, for the sake of better legibility, the results will be presented in a linear way, wherever possible.

Where in the following the author mentions the partial steps of the procedure model, they refer both to the model of management consulting and to the model of astrological business consulting.

The starting point of the procedure model is to identify and formulate the problem. The first two procedural steps serve the basic identification and selection of all relevant elements of the respective model. Step 1 comprises the operationalisation of the target object, which is the consulting quality. Subsequently, step 2 identifies the key factors of the two systems. As a result of the complexity, modelling cannot not take into account all elements; therefore step 3 examines their system relevance and performs a systematic reduction of the key factors identified. Upon that, step 4 examines the system structure by extracting the interactions among all system elements, based on the state of research and the own experience. Finally, step 5 will identify all those determinants to be regarded as independent key factors within the model.

Now, in the following, the author shall detail the individual steps of the procedure model presented. The statements shall refer to both the systems of management consulting and astrological business consulting:

Step 1: Operationalising the Target Dimension of Consulting Quality

Frequently a target is not univocal or the partial targets are connected among each other and their interrelations unknown. In order to improve the system and/or the status and to obtain an sufficiently accurate reproduction of reality, the author concretises and operationalises the target dimension "consulting quality". In accordance with the system-theoretical principle that a system can only be analysed together with its environment, Gomez&Probst (1999) state it in this way: "If we have nowhere to go to, we will move without an orientation in the real world; and if we have no image of reality corresponding the real situation, then we will not be able to modify it reasonably and successfully".

Step 2: Identifying the General Key Factors of the Consulting Systems

After concretising the target dimensions the author will have to identify the key factors having an influence upon the target dimensions. According to Ulrich and Probst, key factors are "all those system elements the interaction of which compose the system's dynamics and/or essentially shape its behaviour" (Gomez&Probst, 1999).

In accordance with networked thinking, a problem situation must be examined from different points of view and perspectives in order to avoid obtaining a selective representation not actually corresponding to the reality. This is why in this procedural step the author systematically identifies and describes the key factors, in order to obtain a representation of the system and its determinants which is as holistic as possible. The criteria for examining the key factors are the perspectives of the client and the consultant as actors, the organisations of the two actors as well as the consulting process itself, which is characterised by the interaction between client and consultant. This partial step recurs to existing research results. The study is intended to be a contribution to the aggregation of existing research works. The result of the procedural step represents the respective model. After collecting all possible key factors, the author shall now have to systematically reduce this large number of elements in the next step.

Step 3: Determining a Set of System-Relevant Key Factors

In order to obtain a system-relevant set of system variables, in this step there takes place a reduction to the essential system relevant key factors (cf. Vester, 2003, p. 213). For this purpose, the author systematically examines the key factors identified thus far from different perspectives (Vester, 2003, p.163). For a sufficient system description, according to Vester, a manageable "set" of 20 to 40 system elements is sufficient. This dimension is not chosen arbitrarily but results from the basic properties of complex systems themselves. In this respect, Vester states "that even very complex systems may be described roughly but sufficiently with a low number of variables" (Vester, 2003, p. 214).

In order to determine their system relevance, the key factors are examined against a series of criteria. For this purpose, within his sensitivity model, Vester developed the crisis matrix methodology. He defined seven essential vital areas for a system to be viable (Vester, 2003, pp. 218).

Step 4: Analysing the Interrelations within the Systems

Once all influence factors are identified and sufficiently reduced, it still remains to be determined how they are related among each other (networked system statics) and how they interact (networked system dynamics). The result is an image of the structure and behaviour of the system as a whole. Hence, the central point here is to determine the interrelations among the factors and the influences they exert among each other, i.e. ultimately a representation of the network.

In examining the interrelations among the key factors, firstly the following questions must be answered:

- Which of the system relevant key factors exert a direct influence upon the target dimension "consulting quality"? And which key factors, for their part, exert an influence upon these further?

- Which factors are influenced by the target dimension "consulting quality"? Does this cause any influence upon other key factors?

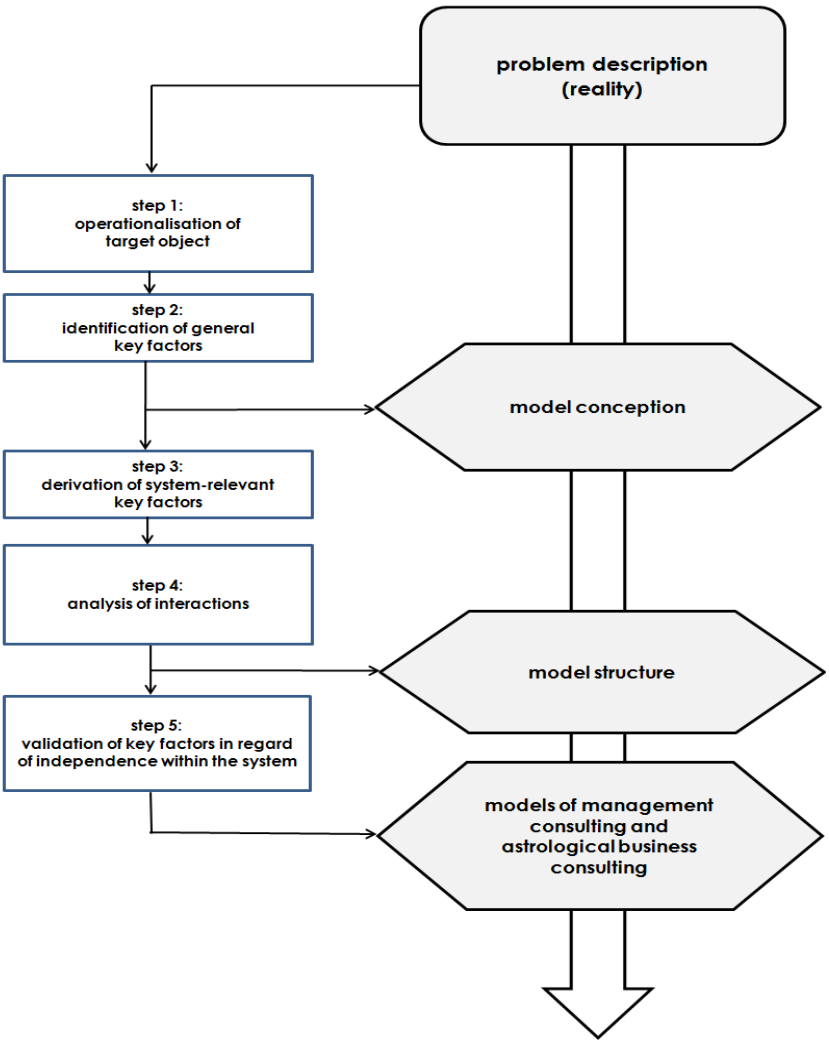
In this step, the author establishes the connections among the individual factors. As a consequence there arises the image of the structure of interrelationships or an interconnected whole.

On the other hand, there must be awareness that any representation of the interrelations among the key factors only reflects a static image (network representation) of a system (Gomez&Probst, 1999). Given the fact that the various system elements actually are in constant change and may exert mutual influences upon each other, it is not enough to know how the system elements are interrelated but also how they interact. The examination should therefore also cover this latter issue. The result obtained in this step represents then a model derived from theory and based upon experience, which includes the system relevant elements and its interactions.

Step 5: Finding the Independent Key Factors

Now that in step 4 the relationship between the system relevant key factors and their interactions among each other are established, in order to become able to reduce the system complexity and thereby have represented the system network, in this present phase among the multitude of system relevant key factors, the author identifies those which are independent or largely independent of the other key factors. Through these independent key factors the author will then be able to establish the system of management consulting and the system of astrological business consulting.

Figure 18: System-theoretical procedural model (following Gomez&Probst, 1999).



Once an overview of the procedural steps for the development of the management consulting and astrological consulting models has been provided, they will be concretely developed in the following Chapters 4 and 5.

3.8.2 Empirically Investigating the two Theoretical Models

The result of steps 1-5, the model of management consulting and the model astrological business consulting, will then be validated. It is important to be aware that, for one part, the model consulting developed is determined by its independent key factors and that, for the other part, these independent key factors, the model's determinants, were found based on secondary data, available in literature, e. g. in the form of empirical reports, investigations. The inductively construed models of consulting now shall empirically be validated.

Through such a validation, the author proves that the models are true in the way they were construed. In case the results of the empirical investigation differ entirely or in part from the models theoretically construed, then also the corresponding system models would have to be revised, based on the primary data.

3.8.3 Comparing the Theoretical Models with its Empirical Data

On the basis of the empirical validation of the models of management consulting and astrological business consulting, the author compares the findings from the empirical proceedings with those from the theoretical procedure, that is, the two models of consulting theoretically developed will each be compared with the empirical data resulting from the survey research. If necessary, the theoretical model must be revised.

3.8.4 Confrontation of the Astrological Business Consulting System with the Management Consulting System, both empirically validated

Subsequent to the comparison between the theoretical model and the empirical data, the author confronts the two systems of consulting with each other. Objects of confrontation are the independent key factors (determinants) of both consulting systems.

A full or extensive congruence of the determinants of the astrological business consulting system and the management consulting system might suggest the conclusion that also astrological business consulting constitutes an applicable approach in the area of business consulting. On the contrary, however, we must also state that from a scientific point of view, astrological business consulting is not an applicable approach in the area of business consulting if its independent key factors do not fully or extensively match those of management consulting.

3.9 Summary

In this chapter, the author presented and examined the process procedure within this investigation.

Methodically, the research questions are processed by means of a comparison of systems. The theoretical framework for this are the realm of systems thinking, the sensitivity model of Vester (1980, 2003) and the networked thinking approach of Gomez&Probst (1999, 2004). The two consulting systems are first theoretically developed as models on the basis of secondary data. Subsequent to this procedure, the theoretical models are empirically validated. A comparison between the theoretical models and the empirical data then takes place, and if necessary, the models are revised based on the primary data. In a further step, the astrological business consulting system, empirically validated, is confronted with the management consulting system. Management consulting is considered to be a suitable consultancy concept of reference in the area of business consulting. The common denominator for the systems confrontation shall be the quality of consulting. Both consulting systems are conceived of as explanatory models developed on the basis of secondary data (literature, surveys, experiences), by identifying their respective system-relevant key factors and deriving from them the independent system elements. If the astrological business consulting system is described by the same system-relevant independent key factors as management consulting, we may suppose that astrological business consulting is an applicable consulting approach in the area of business consulting.

Chapter 4: Management Consultant Model of Reference: Conceptually Designed by Secondary Data Collection

The first task within modelling consists in deducing a concept management consulting model. In accordance with the procedure described under section 3.8, in Chapter 4 the author begins with the operationalisation of the consulting quality target dimension.

Consulting quality represents a variable which is suited to the examination of the consulting process (consulting in a stricter sense) with regard to the success of consulting. Building thereupon, in the second step the author identifies and operationalises those key factors which influence the indicators of the consulting quality target dimension.

In the past years, the quality management of products and services has become a central issue in corporate practice as well as in theoretical disquisitions. Whereas the quality measurement of physical goods is relatively easy, the quality measurement of services becomes much more complicated. The reason for this lies in the immateriality of services. Thus for example no inference may be made in respect of meaningful use or high-quality consulting either from the number of consultants employed in a project or from the use of technical instruments or methods.

Hence service quality is a complex phenomenon. "It is determined both by the consumer and his/her objects (external factors), and the supplier and his/her objects (internal factors). Since it cannot be separated or isolated from the consumer and his/her objects, it will always be [...] of a subjective nature" (Meyer&Mattmüller, 1987, p. 189).

For the operationalisation of consulting quality, the author uses a general quality model for services as developed by Meyer&Mattmüller[23] (1987, p. 187 and p. 191) and concretised for the research object (Hilke, 1989, p.15). The model provides indications for service quality determination and shaping and is intended to provide evidence of how quality as a complex whole is concretised throughout the entire ongoing process of a service.

The authors mentioned above divide service quality into three shaping areas, namely potential quality, process quality and result quality (Meyer&Mattmüller, 1987, p.187; p.191; Hilke, 1989, p.15). These "sub-qualities" are of a situational significance for both the consumer and the supplier. Applied to the context of management consulting, the author obtains the sub-qualities designated as consulting potential quality, consulting process quality and consulting result quality.

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[23] The model by Meyer&Mattmüller (1987) picks up on cybernetic thinking, since the approach supposes that influence factors behave in a situational and dynamic manner and do not constitute static values. As will be further set out in detail in the following, the quality sub-elements are subject to the influence of other factors. Likewise, quality exerts an influence upon other elements of the management consulting system.

4.1 Operationalisation of the Target Dimension Consulting Quality

4.1.1 Consulting Potential Quality

The consulting potential quality describes the potentials and dispositions available prior to a performance, as oriented towards the consulting process. It may be further subdivided with regard to consulting potential quality on the supplier side (the consultant) and the consumer side (the client).

A supplier's consulting potential quality is determined by his/her consultant's (unum pro cunctis) potential efficiency and the supporting objects available, such as standardised consulting instruments and methods. However, the sole existence of such potentials does not automatically assure the quality of consulting, since these capacities and objects must still be adjusted to the service offered to the client. According to Meyer&Mattmüller (1987, p. 192), the degree of specialisation of the internal capacities offered is the key to the quality of the service later provided. Such specialisation potentials describe a consulting firm's capacity for the supply of client-specific services. Also Stutz (1988, p. 130) is of this opinion when stating that a consultant's qualification depends on whether his/her capacities (as resulting from his/her professional history and personality structure) meet the client's requirements, which result from the specific character of the consulting activity.

Usually these specific potential consultant capacities are not transparent for the client. Therefore the consultant and the consulting institution usually seek to document their professional experience, and/or special or process expertise obtained, and hence the concomitant potential quality e.g. through memberships in associations, certifications or the provision of references (Hummel, Zander, Ziehm, 1993, p. 82).

Contact potentials are the second potential quality determinant of consulting. They describe the characteristics of the consultant at the moment of coming in contact with the client (client orientation, professional and social competences, experience, etc.) as well as the characteristics of the objects perceived by the client (standardised consulting instruments, office equipment, etc.). In the consulting project run-up, client-oriented and client-specific design of subjects and objects are especially important since the client will use these as assessment instruments for the consulting quality expected (Hummel, Zander, Ziehm, 1993, pp. 79).

However, the consulting potential quality as well as the consulting process are determined decisively by the client's characteristics and capacities:

- Integration potentials describe the client's basic attitude to physical, intellectual or emotional co-operation in the consulting process. This basic attitude may manifest itself e. g. as being positive, neutral or negative, and thus a priori decisively determines the consulting process and quality. If a client brings in a negative basic attitude, originating from previous experiences with consulting services, such an attitude will have an influence e. g. upon his/her information and communication behaviours.

- Interactivity potentials characterise the influence potentials released by the mutual interactions between client and consultant, which, as such, may have a physical, intellectual or emotional influence, both positive and negative, upon consulting quality. The performance as such is produced within the consulting process, which is likewise characterised by specific quality types.

4.1.2 Consulting Process Quality

Particularly relevant in producing the performance is a consultant's capacity to adapt his/her performance in a situational and personalised manner, with regard to the client's needs and specific characteristics. Meyer & Mattmüller (1987, p. 193) express this as follows: in the performance production process, the consultant concretises his/her previously specified performance capacities for the client, who for his/her part integrates himself/herself (or his/her objects) ways in the production process in different.

The consultant's actual behaviour and the performance capacity of consulting instruments determine the consulting quality decisively and lastingly. The consultant must adjust both a client-individual selection of the consulting contents (What has to be done? What tasks and results have to be achieved?) and an optimal way of transfer, distribution of tasks and instruments applied (Who works how and with what instruments?) in accordance with the concrete situation, whereby contents and instruments might have to be adapted whenever conditions change.

The consulting process quality may be divided into four subareas according to the actual process behaviour of the actors involved:

- Key quality factors of the consulting process on the supplier side (consultant):
  (1) Process behaviour with regard to specification potentials.
  (2) Process behaviour with regard to contact potentials.

- Key quality factors of the consulting process on the consumer side (client):
  (3) Process behaviour with regard to integration potentials.
  (4) Process behaviour with regard to interactivity potentials.

At the end of a consulting object, results are presented and recommendations for action are drawn up.

The quality of results, which is also subject to the client's subjective perception, is decisively relevant for the consulting success. Therefore, in the following, the author shall further describe the quality of the consulting result.

4.1.3 Consulting Result Quality

Typically, the results reached in the realisation or the implementation of the recommendations for action (e. g. turnover increases, cost savings) can not be assessed in terms of quality until after the project is completed. Consulting result quality may be classified in this way:

- Quality of the final process result and
- Follow-up quality.

Figure 19 summarises the operationalisation of consulting quality regarding the three dimensions: potential quality, process quality and result quality.

Figure 19: Operationalisation of consulting quality of management consultation (source: own depiction).

consulting quality	consulting potential quality	consultant system's consulting potential quality	specification potentials
			contact potentials
		client system's consulting potential quality	intergration potentials
			interactivity potentials
	consulting result quality	final process result quality	content quality
			transmission quality
		follow-up quality	quality of content
			transmission quality
	consulting process quality	consulting process quality on consultant system side	process behaviour in regard of specification potentials
			process behaviour in regard of contact potentials
		consulting process quality on client system side	process behaviour in regard of intergration potentials
			process behaviour in regard of interactivity potentials
1st level	**2nd level**	**3rd level**	**4th level**

4.2 Theoretical Model of Management Consulting System

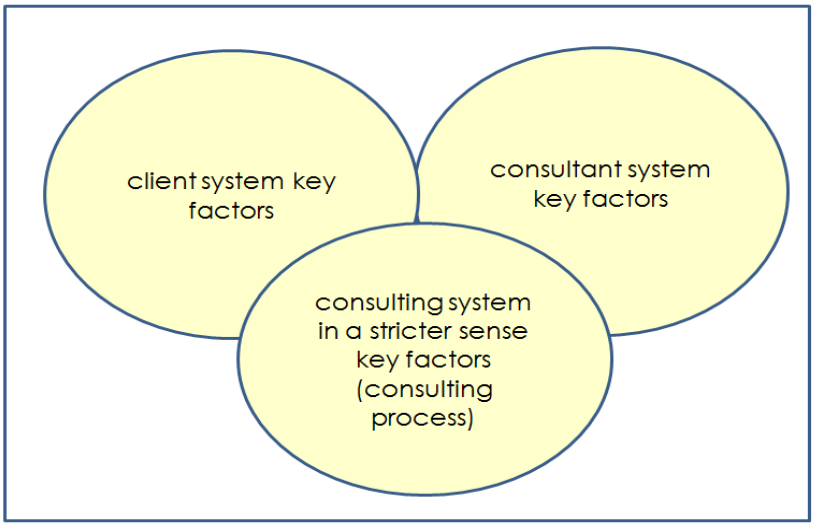
Detailed comprehension of the direct or indirect causal interrelations having an impact on the consulting quality target dimension is indispensable for target-oriented action within the system. Management consulting is a complex global system in which the most varied elements interact dynamically within a network structure. After operationalising the consulting quality, in the following step the author shall successively identify the system factors which determine the system's variability and influence the target dimension.

On the one hand, the system elements to be identified influence the behaviour of the global system, and on the other they themselves are influenced by other factors. Thus they may appear as both determinants and variables. To make things simpler, the author shall follow Vester (1980, 2003) and Gomez&Probst (1999, 2004) and below neutrally denominate all elements as key factors, as the author shall firstly examine their general influence character upon the system.

The following key factor identification is based upon the management consulting state of research, qualitative expert interviews and the author's own experience. In order to identify the key factors, the consulting system will be examined from the perspectives of consultant, client and consulting object. In identifying and describing the relevant factors, as shown in Figure 20, there are deliberate overlaps and redundancies evidencing important interconnections and intuitively deductible system dependences.

The following key factor deductions reflect the perspectives of consultant, client and consulting object.

Figure 20: Examination of the consulting system key factors considering different observation perspectives (source: own depiction).



4.2.1 Identification of General Key Factors within the Management Consulting System

In considering different perspectives regarding the consulting system, the author may now deduce the key factors based upon the levels of perspective of consultant, client and consulting object. Thus from the perspective of the consultant (consultant subsystem) three work-relevant levels can be distinguished: the level of individual consultant properties, the level of direct co-operation between consultant and client, and the institutional level, namely that of the consulting enterprise.

4.2.1.1 Perspective Consultant

4.2.1.1.1 Consultant-Individual Key Factors

Consulting is essentially marked by a consultant's specific properties and his/her relationship with the client (Najda, 2001, pp. 119; Czerniawska, 2002, pp. 71, Kakabadse et al., 2006, pp.417).

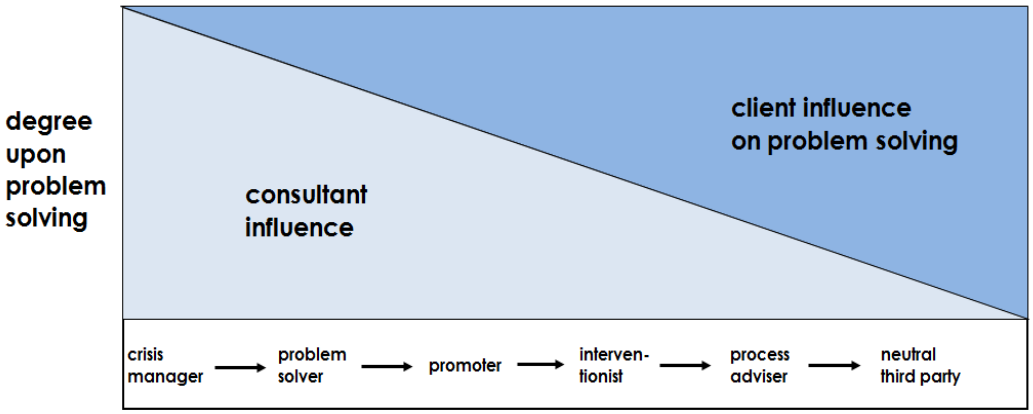
In order to adapt to the specific consulting situation, a consultant may assume behavioural attitudes, also called consultant roles. The author may, in this context, refer to the statements under 2.3.5, where the roles of the parties involved in consulting were presented in detail.

The selection of an adequate role is usually determined by the consulting target, purpose and success desired. Consultant roles differ from each other by their degree of integration and/or interaction and the level of co-operation with the client (e. g. Hoffmann, 1991, p. 84; Kubr (1996, p. 489); Schein (1997, p. 206); Arnaud (1998, p. 472); Stumpf&Longman (2000, p. 125); Stumpf&Tymon (2001, p. 49); Mulligan&Barber, 2001, pp.84).

Different consulting objects and client types require consultant roles to be adapted to the respective situations. Consequently they represent variables, in the genuine sense of the word, which ideally may be determined only after analysing all other influence factors. In practice, such an ideal-typical situational adaption is rather rare, usually not least due to the consultant's limited repertoire of roles.

When examining the contributions regarding consultant roles in literature, these may be differentiated according to the degree of influence on problem-solving. Viewing the global influences of client and consultant throughout the project course simply as a constant, the following statement may be derived: The greater the consultant's influence upon problem-solving, the less the client's influence, and vice versa. The following Figure 21 shall underline that statement.

Figure 21: Consultant role according to influence upon problem-solving (source: Strasser, 1993, p.85 following Elfgen&Klaile, 1987, p.113).

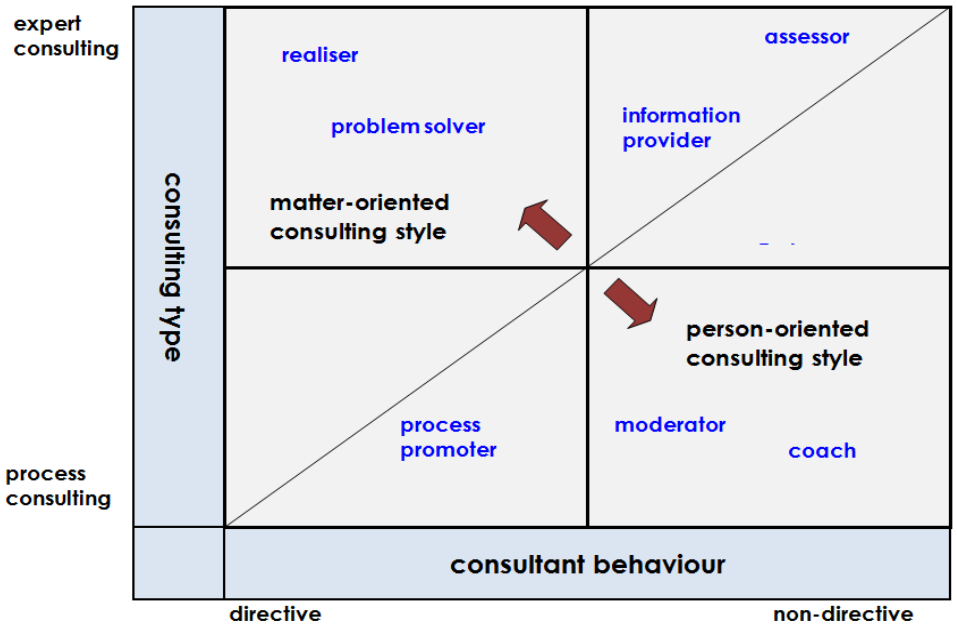


When considering the extreme left position in Figure 21, the consultant acting as a crisis manager totally influences problem-solving. Such a role seeks to elaborate quick solutions in extreme situations for enterprises. The other extreme represents the role of a neutral third. In such a case, the solution is practically determined by the client alone. The consultant is a passive expert acting merely in the background who is sought temporarily. Figure 22 shows the consultant roles from a one-dimensional perspective.

Based upon one-dimensional models, other authors introduce more explanatory factors in order to add a further dimension to the distribution of roles (Hoffmann, 1991, pp. 87; Stutz, 1988, pp. 181). The bi-dimensional model by Hoffmann shall be considered in detail in this work and used, in the following, to describe concrete forms of the key factor 'consultant role':

Hoffmann (1991, pp.86) defined a bi-dimensional matrix with the dimensions directivity of consultant behaviour (directive to non-directive behaviour) and consulting type (process consulting to expert consulting). The consulting type indicates whether the consultant tends more to provide problem-oriented expert knowledge (expert consulting) or the moderation and steering of problem-solving processes (process consulting).

Figure 22: Consultant roles according to Hoffmann (1991, p. 87)



As seen in Figure 22, Hoffmann (1991, p.87) classified the consultant roles along a diagonal in person-oriented and object-oriented roles. Each of these role groups is assigned four characteristic types so that a total of eight typical roles may be distinguished.

A consultant's available and actually applicable role repertoire may vary greatly in practice (Obolensky, 2001, p.178; Mulligan&Barber, 2001, pp.83; Kakabadse, 2006, p.419). Likewise, role types incompatible with the consulting object and/or the client's properties may have a lasting influence upon the consulting quality. From the above one may deduce that the key factors having an influence upon the success of a consulting object on the consultant side can be determined over the areas of expert knowledge, consulting experience, personality structure and social. Personality structure and partly also social competence determine whether consultant roles can be realised at all.

The consultant's knowledge concerning a certain consulting object is represented by his/her professional expert knowledge. When selecting and evaluating a consultant, such knowledge and the way in which a consultant deals with similar problems are considered by the client to be very significant (Hoffmann, 1991, p. 186; Mulligan&Barber, 2001, pp.96). There may be problems in extensive consulting processes where the broad spectrum of expertise required cannot be provided by one consultant alone. In such a case it may be necessary to split the consulting object and assign the parts to several consultants (Hummel, Zander, Ziehm, 1993, p.79).

Consulting experience, for its part, is decisively influenced by sensitivity, i. e. the capacity to adapt quickly to client-specific particularities. Knowledge of business contents, instrumental and methodological experience, i. e. expert knowledge concerning the focal application of consulting techniques (methods, instruments) and project management experience characterised by knowledge on realisation planning and progress control, constitute further influence factors. The application of certain roles bindingly requires knowledge of certain methods and corresponding experience. In order to act out certain process consulting-oriented roles (e. g. as coach or process motor) it is absolutely necessary to undertake the focal application of intervention techniques.

The greater a consultant's influence on problem-solving, the more he/she will steer the consulting process and the more he/she will need the project management knowledge acquired. Since, for example, small and medium-size enterprises do not have sufficient methodical and instrumental knowledge regarding consulting or project management, it will be up to the consultant to ensure the quality and constancy of project management throughout the course of the project.

While expert knowledge and consulting experience may be enhanced through training and growing confrontation with ever new consulting situations, the personality structure, value and social competence from a cybernetic point of view appear as factors linked to a certain time frame, closely related to a consultant's character features and modifiable only over a protracted period of time. Consulting is behaviour-influencing as well as problem-oriented and it is realised in an interactive way. Hence it poses specific challenges regarding a consultant's personality structure and social competence (Stutz, 1988, p.132). For this reason consulting firms have predefined career models in order to successively broaden and enhance their consultants' capacities.

Although the consultant's individual capacities may first be considered in an isolated manner, the co-operation with the client throughout the consulting course results in the emergence of further key factors influencing the quality of consulting, which the author shall examine more closely in the following section.

4.2.1.1.2 Co-operation-Oriented Key Factors

Co-operation in consulting is marked by the interaction between consultant and client (Mulligan&Barber, 2001, pp.83). Nonetheless, the consultant's or client's workshare may constitute an indicator for the intensiveness of co-operation when put in relation to the total effort undertaken in a project. A client's intensive participation in the consulting process may be a favourable condition for the implementation of a problem-solving concept (see e. g. Hoffmann, 1991, p.300; Kakabadse et al., 2006, pp.425). An even distribution of the workload is, however, not always and necessarily a measure for a high degree of co-operation, since some tasks may be carried out autonomously by the consultant or the client. The intensity in the fulfilment of tasks may vary greatly within the partial stages of a project and over time. Thus it is quite possible that during certain stages either the consultant or the client assume some tasks on their own.

For an identification of further key factors directly resulting from co-operation the author shall use a model presented by Schade (1996, pp.66) He developed a management consulting compatibility model in order to be able to make statements regarding the compatibility of co-operation between consultant and client enterprises. Based on three compatibility types described by Laux&Liermann (1993, p.257) in their model, Schade defined two further types of compatibility and developed a classification containing five specific compatibility types:

(1) Incentive compatibility: the degree of compatibility of targets pursued by the persons responsible in the realisation of their targets and the targets of the organisation, or the targets of the next higher instance (Laux&Liermann, 1993, p. 257).

(2) Information compatibility: the degree of coincidence between the information available to a decision-maker (concerning alternatives for action and their consequences) and/or his/her capacity (and possibilities) of obtaining and storing information, and the information available actually required within the scope of the respective topic in order to be in a position to make really good decisions (Laux&Liermann, 1993, p. 274).

(3) Calculation compatibility: the degree of coincidence between a decision-maker's capacity (or possibilities) of processing information (through decision calculations), and the significance, scope and complexities of the decisions entrusted to him/her (Laux&Liermann, 1993, p. 274).

(4) Target compatibility: the extent to which a client's staff perceive co-operation as agreeable and focus on one and the same consulting target (Schade, 1996, p. 67).

(5) Risk compatibility: the extent to which the risk attitudes of the co-operation partners coincide (Schade, 1996, p. 67).

Schade (1996, p. 72) supposes a positive relation between the degree of compatibility and consulting quality. The above compatibility types may be assigned different key factors applicable to both the consultant and client. For now, it shall suffice to consider and describe the five relevant consultant key factors, and only later to apply the compatibility model to the client:

- Consultant's motivation to contribute to the success of consulting (incentive compatibility):

  A high performance motivation and consequent consulting success may be inherent in the wish for professional advancement or incentives for both the consultant and client. Another incentive may be the concern of being held responsible for the failure of a project.

- Consultant's capacity of gathering information (Information compatibility):

  In providing information, consultants may help reduce a client's information insecurity. Information may be obtained e. g. from internal sources of management consultancy knowledge or autonomously investigated by the consultant him/herself. In order to enhance a consultant's capacity to obtain information, the skilful use of methods and instruments to obtain information and professional experience may be valuable assets.

- Consultant's capacity of problem-solving (calculation compatibility) and methodical competence:

  One of the main reasons why consulting is contracted is the consultant's capacity of processing information and offering problem-solving based upon adequate methods and instruments. Methods and instruments, as well as a consultant's experience may increase his/her capacity of problem-oriented and method-oriented action.

The following two key factors derived from compatibility apply equally to the client and consultant spheres.

- Coinciding focus by client and consultant concerning the consulting target (target compatibility):

  In order to assure that everyone involved works toward the same target it is important for both target and perception to be transparent and perceived as evenly as possible.

- Compatibility of the risk attitudes of consultant and client (risk compatibility):

  Analogously to the previous key factor, the consultant's and client's risk attitudes have an influence upon acceptance and coordination efficiency in problem-solving. When both parties have a similar risk attitude, lower coordination and assimilation efforts may be expected during a project.

The five compatibility types mentioned above represent important influence factors for co-operation between the consultant and client and will be considered later. Finally, the author is now in a position to identify and discuss the key factors resulting from the consultancy organisation sphere.

4.2.1.1.3 Key Factors Reflecting the Consultancy Organisation Perspective

The structural features relevant for the consultancy organisation are trade size and orientation and the enterprise size. Typically, consultancies specialise in certain trades in order to be able to ensure sufficient availability of expert knowledge and hence adequate and reliable consulting for their clients. Apart from specialisation according to trades, there may also be found exclusive consulting for enterprises of a certain size or a specialisation in certain consulting contents (such as strategy consulting, IT consulting, organisational consulting).

To the author's knowledge there are no empirical inquiries into the relationship between consultancy size and type of specialisation. It may nonetheless be assumed that, given their reduced staff capacity, smaller firms encounter their limits in the consulting of larger client enterprises and/or larger consulting projects. Similar problems may be expected for large consultancies specialising in large clients trying to apply their procedures to small enterprises without any modification.

From an organisational point of view, another key factor is the consulting provider's (consultant's) willingness to co-operate. Particularly larger consultancies define certain guidelines and strategies within the scope of their enterprise policies, which may decisively mark the co-operation behaviour of operationally acting consultants. Such guidelines are a part of the so-called enterprise rules or principles. In this respect external rules exerting an environmental influence upon a system and susceptible to influence by the very enterprise only to a certain limited extent should be distinguished from internal rules self-imposed by a system in order to ensure an orderly strategy-compliant performance generation process.

Exemplarily, Althaus (1994, p.60) states three central issues regarding the possible design of guidelines, which through internal rules may decisively mark operative consulting behaviour:

(1) Implementation: Is active support in the implementation of consultant recommendations considered a part of the consultant mandate; or is the consulting process considered completed upon the presentation of such recommendations?

(2) Consultant roles: Are there certain role concepts the application of which is preferred or rejected by the consultancy?

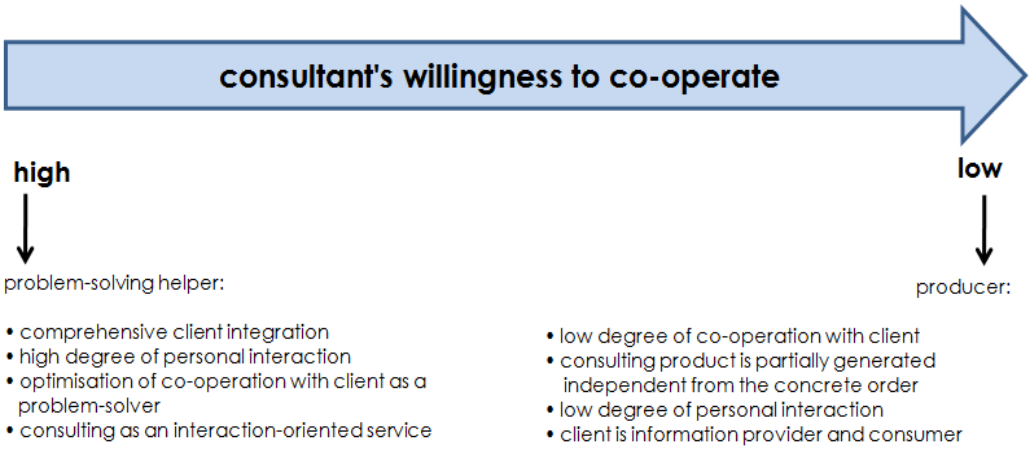
(3) Procedural concepts: Does the consultancy work with standardised consulting methods or does it prefer the application of individual concepts?

The consultant's willingness to co-operate is likewise marked by his/her consultancy's enterprise culture. The enterprise culture is also a part of the internal rules and comprises specific manners established within the system. An enterprise culture marked by participation, the utilisation of synergies and co-operation may have equally positive effects for the range of tasks in consulting projects and the co-operation relationship with the client, whereas in a culture rather marked by competition the opposite effects may be tendentially expected.

In this context, Najda (2001, p.32) developed a bipolar spectrum with two extreme forms of co-operation applied by consultancies in their practice. Inter alia he distinguishes business consulting as a problem-solving aid with a high degree of willingness for co-operation.

Consultancies applying this form of co-operation in consulting involve the client very extensively in the consulting process. At the other extreme organisations can be found with a low readiness for co-operation, acting as mere 'service producers'. In their case, the client is used merely as an information provider. This type of strategy does not consider active client participation in the design of problem-solving. Both extremes are represented in Figure 23. Between these extreme positions there can be found a continuous spectrum of different types of co-operation.

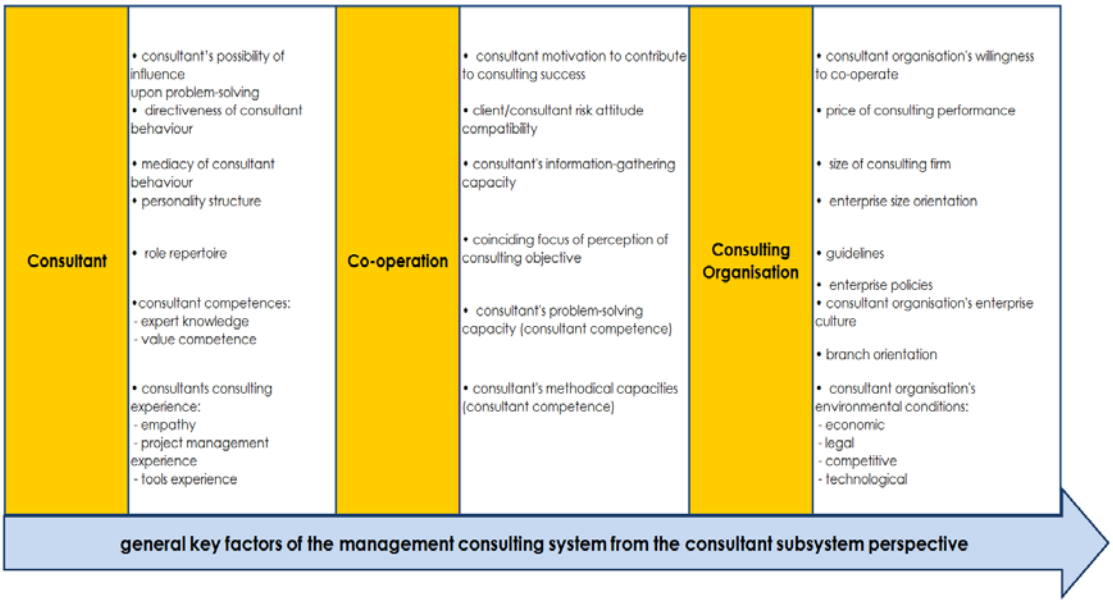
Figure 23: Typology of consultancies according to their willingness to co-perate (source: own depiction following Najda, 2001, p. 32)



As one last influence factor concerning consultancies, the author should mention the price of the consulting service, which is determined over the consultancy's enterprise policy. Service prices may vary strongly among consultancies. The higher the price segment for consultant fees, the higher the total costs for the client, given the direct performance production costs originated. It should nevertheless be stated that from the consulting organisation's point of view, better qualified and hence more expensive consultants typically require a lower time budget to produce a performance. Given the high degree of external staff costs within the total costs of a consulting project, the price represents an important selection criterion for the clients (Clark, 1995, pp.57).

Figure 24 reproduces in a cause-and-effect diagram of all identified key factors resulting from the analysis of the consultant perspective which can be presumed to exert a direct or indirect influence upon consulting quality. The cause-and-effect diagram represents the current status of the actual analysis process and shows the influence factors at that time in a mono-causal display; mutual interactions do not yet appear, since they will be analysed later.

Figure 24: General key factors on the consultant side (source: own depiction).



4.2.1.2 Perspective Client

In analogy to preceding section 4.2.1.1, key factors shall be deduced from a client-individual, co-operation-oriented and organisational perspective.

4.2.1.2.1 Client-Individual Key Factors

As seen in the consultant perspective analysis, also the client has specific properties determining co-operation within consulting. But in comparison with the behaviour and properties of consultants, the literature provides only relatively few proposals and role-theoretical analyses concerning client behaviour. It is not until recently that the interest in the client as a part of consulting seems to be growing in literature (Arnaud, 1998; Stumpf&Longman, 2000; Lundberg&Young, 2001).

A large number of authors in the literature on management consulting refer to the client typology by Fleischmann (1984, pp.122). In this present work, too, the author shall use it as the basis for the elaboration of a classification. On the one hand Fleischmann distinguishes between the expectations which the consultant system has with regard to the client system and on the other hand he states client system role features determining identity, outlasting situations and situation-specificity.

The author shall not follow Fleischmann's consultant-focused approach (1984) when he states that the consultant system has expectations regarding the client system. Expectations will tend to exist primarily on the client system side, although in the course of consulting they may be influenced by the consultant. For Fleischmann, the most relevant external expectations towards the client are his/her capacity to learn and his/her competence. The features determining identity include e. g. the size and trade, of the enterprise as well as the complexity and relevance of the consulting task. For reasons of simplification Fleischmann (1984, pp.122) reduces the external expectations and role features determining identity to two dimensions: The "willingness to learn and change" and the "pressure for problem-solving in the enterprise", in order to subsequently derive four different client types.

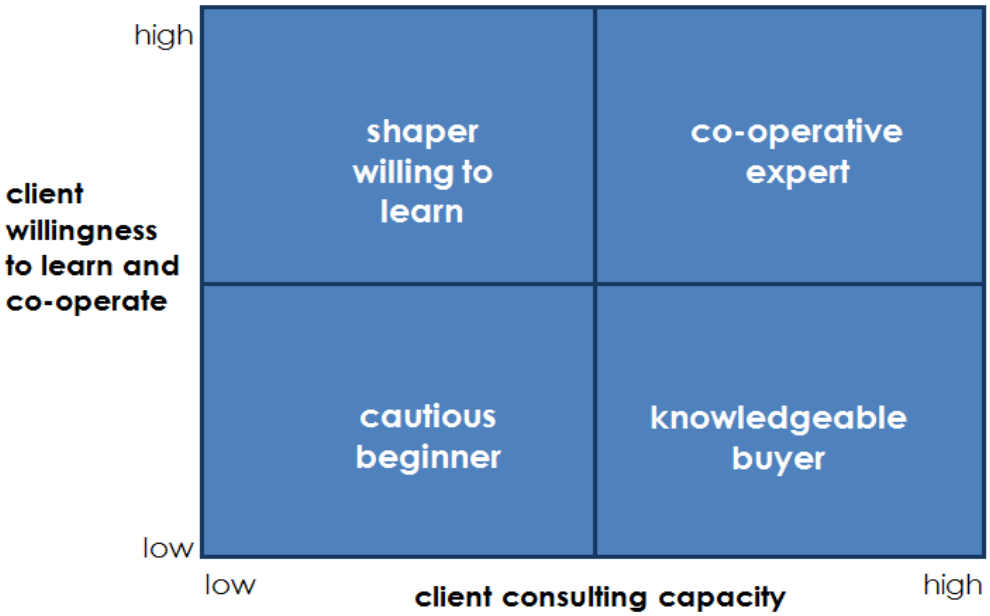
For the typology to be developed, the pressure for problem-solving will not be explicitly considered, since it is related more to the client organisation and the consulting task than to the client-individual key factors examined in this section. Fleischmann's consideration that the willingness to learn and co-operate constitutes an essential component to classify enterprises in demand of consulting is taken up also by Najda (2001, pp.34). In analogy to the model of the co-operation willingness of consultancy companies he developed a one-dimensional model using the co-operation willingness of the client enterprises for characterization. On a bi-polar spectrum, Najda (2001, pp.34) identifies two extreme types of client enterprises: committed shapers, who see co-operation as a constitutive element of consulting; and buyers of consulting services, for whom co-operation in the consulting process is not deemed necessary.

Taking the dimensions of Fleischmann's (willingness to learn and change) and Najda's (willingness to co-operate) models, there emerges as a new additional dimension the key factor "client willingness to learn and co-operate". This factor constitutes a value independent of absolute experiences regarding consultancy services. It is influenced by the following key factors:

- The general attitude toward external assistance.
- The client's personality structure.
- The client's available capacity and/or willingness to provide sufficient resources for the project.

As a second dimension, the author shall introduce consulting capacity, the characterisation of which depends on the absolute utilisation of consultancy services. It is determined by expert knowledge (competence) and knowledge and experience in how to deal with consulting performances (e. g. client competence concerning procedures, methods, instruments and possible results). When a client has already had experience in dealing with consultants, it may be supposed that there is a more realistic appreciation of the possibilities of what consulting provides. Figure 25 shows the newly introduced dimensions and the four specific client types derived from them.

Figure 25: Client types according to willingness to learn and co-operate, and consulting capacity (source: own depiction).



As yet another client-individual key factor, the author shall consider the motivation to seek consulting. In this the distinction may be made between the motivations directly resulting from the original enterprise purpose, for example as an optimisation of operative enterprise results or cost savings (cf. Clark, 1995, pp.70) and those motivations rather founded in the client's individual and personal goals (cf. Mulligan&Barber, 2001, pp.87). The latter include e. g. the modification of power relationships. It is frequently the case that consulting targets, camouflaged as enterprise purpose-oriented, hide an entrepreneur's or leading employee's personal motivations. It is also possible that there is a mix of both motivations. With regard to consulting motivations, Hoffmann (1991, p. 182) critically states: "Many enterprises consider the consultant a bogeyman, scapegoat or arbiter for enterprise-internal conflicts rather as a competent". One may presume that consulting objects which were initiated under such intentions have only slim chances of success (Hoffmann, 1991, p.182].

As a last key factor the author shall mention the client's capacity to trust the consultant's competence. Many clients contract a consultant or consultancy merely due to his/her market image, but without prior experience. Consequently it frequently happens that after the first contacts clients are not as co-operative as would be desirable for the consulting process; one reason for that is that they are not yet actually convinced of the consultant's competence. This lack of confidence, however, may ultimately have a negative influence upon the consulting quality and result.

Hence the original motivation may have a direct influence upon the consulting quality. The more homogeneous and transparent the perception of the original targets of both the client and consultant are, the more likely become the project's success and the corresponding consulting quality.

After the client-individual key factors the author shall now, from the client perspective, examine the key factors arising from the co-operation between consultant and client.

4.2.1.2.2 Co-operation-Oriented Key Factors

The client's workshare in the total project efforts indicates how intensively the client was involved in the fulfilment of consulting project tasks and/or how intensively the client was integrated by the consultant in it. An enterprise-specific solution always demands client participation possibly in the form of the client's staff providing the trade and/or enterprise-specific process know-how required for a solution. This factor, however, does not necessarily allow for conclusions regarding the intensity of co-operation. In order to deduce further key factors, the author shall once again use the compatibility model:

- Incentive compatibility (client motivation to contribute to the consulting success):

  From the co-operation point of view, the client's motivation to successfully realise and complete a project is an essential key factor. The motivation for co-operation, for its part, is strongly determined by the client type and the enterprise's culture.

- Information compatibility (client capacity to provide information):

  The more specifically consulting is adapted to an enterprise, the more relevant is high-quality information about the enterprise to be used in the analysis. Typically, only the client him/herself may provide such information, since only he/she knows the sources and ways to obtain or else owns such relevant information.

- Calculation compatibility (client problem diagnosis and solving capacity):

  This feature characterises the extent to which the client is capable of processing problem-oriented consulting information himself/herself and of diagnosing and solving problems.

According to the compatibility model, further key factors concerning co-operation are a homogeneous perception of the consulting target by consultant and client (target compatibility) and a compatible risk attitude (risk compatibility), which have already been treated under 4.2.1.1 as from the consultant perspective. They apply to the client sphere to an equal extent as under the consultant perspective. What may be added for target compatibility with regard to the client sphere is that the norm and value system of the client organisation should be compatible with that of the consultant. In the event of incompatibility there will not be sufficient ground for successful consulting.

The consulting process transparency is another essential factor resulting from co-operation. This factor represents the degree to which both partners, and particularly the client, are mutually informed about the project progress and status. The spectrum of characteristics of this factor ranges from a complete lack of transparency (the client knows neither the exact targets nor the way to achieve them nor the current tasks being processed) to complete transparency, where both partners have exact knowledge about the targets as well as the tasks to be processed both currently and in the future.

At the end of this discussion concerning the analysis of key factors from the client perspective, the author shall also consider the factors resulting from the organisational perspective.

4.2.1.2.3 Key Factors Reflecting the Client's Organisation Perspective

The structural client organisation key factors represent enterprise size, age, industrial trade, legal form and property relations. These structural data have an influence on the consulting process design and the direct co-operation type and mode among the actors. The size of an enterprise may be defined by means of financial aspects such as the annual turnover or the number of staff employed. Its trade association indirectly defines also the competitive environment. The legal form and property relations concretise the target group for consulting and/or the consulting results (which bodies and instances, e. g. managing directors, entrepreneurs, boards, are decisive for the consulting process (Hoffmann, 1991, p.178)).

The enterprise culture and strategy of the client organisation determine the degree of co-operation, delegation and collaboration existing within the enterprise so that it may reach its targets. This factor also influences the kind of co-operation between the consultant and the client, since it may be supposed that the kind of problem-solving behaviour practised within the enterprise will similarly also characterise any external co-operation. Unless the enterprise culture and strategy as such are the object of consulting, the consulting process will be limited by the given strategic targets and the thinking and behavioural patterns as developed along the enterprise's history (Hafner&Reineke, 1988, p.28).

Hoffmann was able to show that there is significant dependence between the consulting success or quality and an enterprise culture oriented towards co-operation, delegation, collaboration and open discussion, or such behaviour practised by the corporate executives (Hoffmann, 1991, p.236). Hence, the enterprise culture of the client organisation appears to be an important precondition for a successful course of consulting.

In particular the economic situation of the client enterprise determines the problem pressure and consequently the urgency of a solution. When a consulting contract arises out of an economic emergency, this fact has a direct influence upon the procedural model to be chosen as well as the possible project scope. The client's expectations in such a case comprise primarily short-term results. The economic situation may also have an influence upon the client's willingness to learn and co-operate, since the client system's existential involvement may increase his/her motivation in the consulting project.

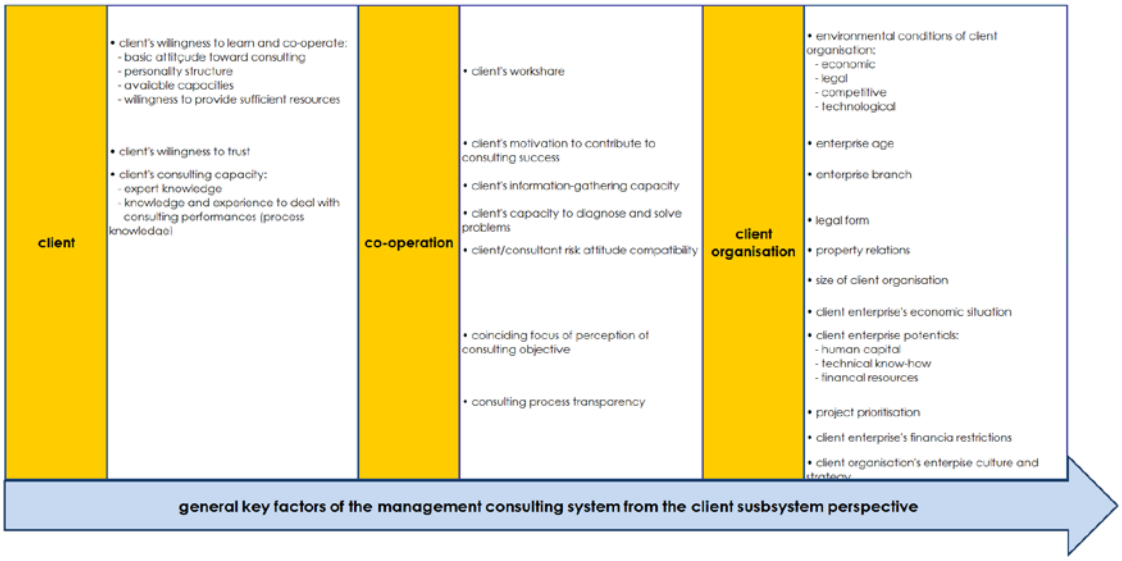
The client system financial means factor is directly related to its economic situation. The financial means and budget available have an influence upon the consulting project's structural size, such as for example its time frame, methods and instruments to be applied and the number of staff involved in the project. It may be assumed that enterprises facing a complicated economic situation will suffer tighter financial restrictions than those operating in a prosperous environment. Likewise it may be stated that due to economic difficulties, apart from budgeting, also the kind of consulting projects realised will change. There is a trend that in times of financial difficulties projects are favoured which have effects realisable in the short term over those with medium or long-term results. In difficult times, typically research and development-oriented projects and those with risks and/or benefits not clearly calculable in advance are not realised at all.

The project prioritisation indicates the attention which the client side pays to the project and its targets. The higher priority of a project i. e. the higher the so-called management commitment to the project, the more likely it is that an enterprise will provide staff and time resources for the fulfilment of the consulting tasks or itself participate actively in it. In this context Hoffmann (1991, p.247) states a positive relationship between the visible self-commitment of a client enterprise in favour of the project and the quality of consulting.

Also the potentials of the client enterprise determine its possibilities of participating in the project. Those potentials may be its human capital, the technical know-how available and financial or material resources. It is further possible to qualitatively and quantitatively classify staff potentials for problem-solving (Hafner&Reineke, 1988, pp.28). The environmental conditions of the client enterprise are determined by general economic, competitive, legal, political and technological conditions. These may exert a direct or indirect influence on the consulting project. In consulting especially the competitive environment is frequently considered in order to provide an orientation, although this does not necessarily always make sense (Hafner&Reineke, 1988, p.30). The general legal and political conditions may have an influence upon the urgency and complexity of consulting when the goal is to prepare an enterprise for new framework conditions and to implement them gradually. General technological conditions become relevant when their application constitutes a success factor for the client enterprise.

Difficult environmental conditions or their modifications over time may lead to particular time-related restrictions but also to an increase in the complexity of the consulting task. However, a modification of the environmental conditions may also be the reason for contracting consulting services, because the changes induced by the environment cannot be autonomously resolved. Figure 26 provides a summary of all influences identified from the client system perspective.

Figure 26: General key factors on the client side (source: own depiction).



4.2.1.3 Perspective Consulting Process

All actors involved in the consulting process interact. This circumstance is ultimately decisive for the consulting success. The consulting process object is the consulting project as envisioned by the co-operation task among the actors. The duration of the project defines the time span during which co-operation between the consultant and client takes place and consulting tasks are realised.

In considering the "co-operation intensity" factor, Najda (2001, p.66) identifies two extreme forms of co-operation in consulting projects between which the possible spectrum of consulting projects may range in practice. He classifies those projects with a high degree of co-operation intensity as problem projects, while those with a low intensity are called task projects. The designation "problem project" results from the fact that this project type demands considerable efforts from both consultant and client, professionally as well as socially. The consulting task is marked by insecurity and ambiguity; the persons involved seek to overcome them through intensive co-operation (Nadja, 2001, p.67). On the client side, the realisation of a problem project requires great willingness to learn and co-operate, on the consultant side it demands the application of person-oriented consultant roles and sufficient professional experience, particularly sensitivity for the specific enterprise. In contrast, the problem in a task project is clear and prone to insecurity only to a small degree. Task-sharing is necessary only to a limited extent. The consultant may realise the consulting performance by applying existing solutions and procedures.

The consultant's capacity to provide information is thus more significant than that of the client in these projects. In summary, the system relevance of the "consulting task complexity" key factor may be derived from Najda's (2001) model, a factor which according to Najda's investigations has an influence upon the intensity of co-operation.

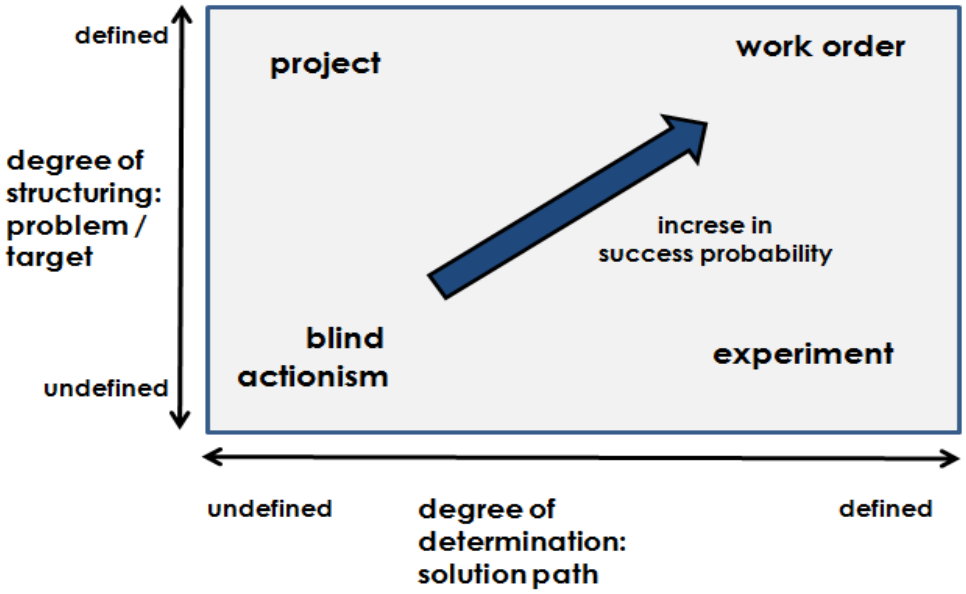
Furthermore, the degree of structuring of a consulting problem represents an important influence factor. In supporting client management, the consultant's tasks consist in identifying, analysing and solving of problems. The objective may consist in the correction of a deteriorating situation, an improvement of an existing situation or creating a completely new situation in the enterprise. However, in practice, it may be possible that these three problem types are not clearly separable or, if so, then only with difficulties, since they may mingle. The degree of structuring of a problem may be classified threefold: there are structured, semi-structured and unstructured problems.

Problems are referred to as structured if they can be determined, prior to problem-solving, by quantifiable relations and the specification of variables and selection criteria. There must be clear procedures available for problem-solving. Once the problem and target are determined in a model, the decision may be immediately calculated by means of a familiar solving routine. Structured problems are characterised by the fact that there is only one or a small number of possible solutions. On the other hand, in the case of semi-structured problems, structured representation of the problem is possible, but there is certain insecurity regarding the development of variables. Likewise, it is not possible to quantify the decision criteria. In such a case it is necessary to carry out a comprehensive analysis of possible future developments.

The unstructured problem type is characterised by the fact that the problem cannot be fully represented. The development of variables and the solution path cannot be determined in advance. Thus it is not possible to determine an optimal problem and consequently there are a large number of alternatives for action. Unstructured problems demand the greatest efforts from the client and management consultant in respect of their know-how, their willingness to learn and co-operate, and their co-operation intensity in the consulting process.

Figure 27 provides a practice-oriented problem characterisation considering the solution path and the problem or the target as a solution path. A project with a defined problem and solution path can be designated as work order; if the solution path and target are largely undefined, we may speak of blind actionism. The probability of project success increases from the lower left to the upper sight side. In accordance with the system-theoretical perspective the classification is subject to temporary dynamics and may not be observed statically during its course since the problems and targets as well as the solution path may vary with the increasing involvement of the actors, i. e. over time a project may be subject to development either toward blind actionism or work order.

Figure 27: Delimitation: Project types (source: own depiction).



Basically the degree of structuring of the consulting problem determines the possibilities of applying standardised consulting methods. When a structured problem is possible existing standardised or semi-standardised consulting methods may be utilised which facilitate the pre-structuring of the solution path, consulting tasks and alternatives for action. The methods for problemsolving may be of an implicit or explicit nature. Implicitly they may be available as consultant knowledge not documented or formalised regarding, for example, the procedure or structuring of a project. Explicit methods can be more or less formal descriptions, e. g. in the form of electronic storage within a knowledge management system, and as such transferred to other persons or viewed by them. In the context of the application of methods also standardised instruments and tools may be utilised which contain predetermined processes and contribute to the structured capture of the data required to generate the alternatives for action. Thus they allow a more flexible work distribution through focused client steering, but are also useful in a better delegation of tasks to the client.

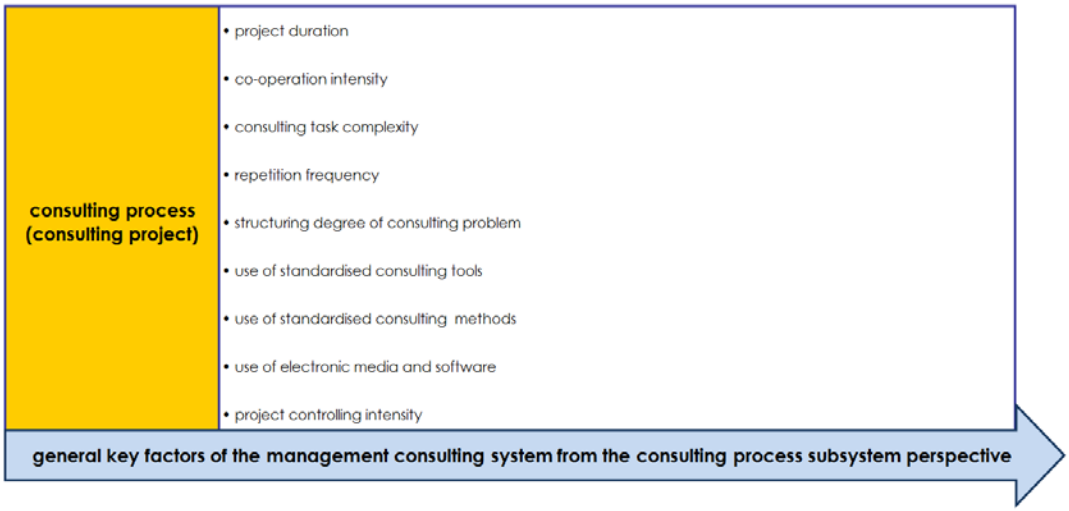
The prevalence of standardised consulting methods is determined by the number of occurrences of the consulting problem in question. Only the recurrence of certain problems makes the application of standardised know-how and knowledge possible.

The use of standardised consulting instruments is sometimes linked to the application of electronic media and corresponding software. This equipment can serve as a carrier medium for consulting instruments. Such electronic tools may also be used for synchronic and non-synchronic communication between consultant and client and thus support working in structures physically distant from each other. Its focused application may yield a reduction of incidental costs, especially consultant travel expenses.

The intensity of project controlling describes the extent of a more or less ongoing progress control in respect of both budget and result. This task may be realised either by the consultant or the client, or shared by both actors. Hoffmann (1991, p.260) was able to confirm a hypothesis confirming the positive influence of project controlling on the consulting success. With an additional differentiated analysis he found out that, contrary to the degree of participation of the persons involved and the degree of consulting process organisation, the intensity of project controlling is essential for the success of consulting even in consulting processes of low complexity and in cases of small client enterprises (Hoffmann, 1991, p.260).

In the figure below the author summarises the key factors identified as resulting from the consulting process perspective.

Figure 28: General key factors on the consulting process side (source: own depiction).

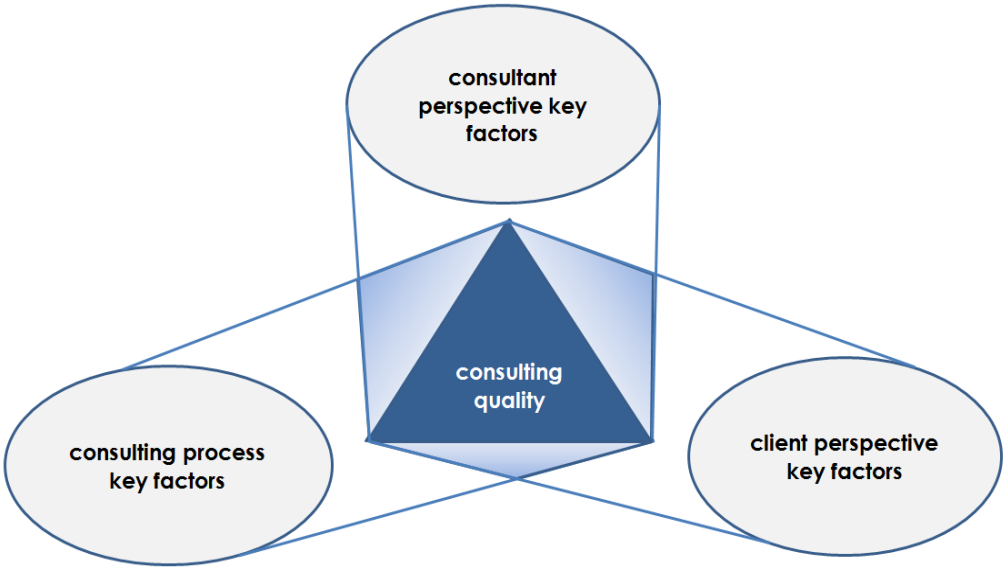


Based on the operationalisation of the consulting quality target dimension (cf. Secton 4.1) and the general key factors deduced, the author may now derive a summarising rough model without taking the detailed interactions among the system elements into consideration. On the basis of the preceding analyses the author was able to identify a total of 69 general key factors and 12 components of consulting quality.

4.2.2 Concluding Representation of the Management Consulting System

This work is based upon the system-theoretical thought that the key factors identified over time are subject to dynamic changes and hence cannot represent static, constant values. The states of the key factors from the perspectives of the consultant, client, and consulting object describe a specific and individual consulting situation at a certain point in time. The interaction of all system components described may be represented in a concept model concerning the quality of management consulting services (Figure 29).

Figure 29: Conceptual model for the quality of management consulting services (source: own depiction).



4.3 Management Consultant Subsystem of Reference

4.3.1 Reducing Complexity in the System of Management Consulting

4.3.1.1 Systematic Reduction of General Key Factors

It is the aim of this third procedural step to reduce the complexity of the management consulting model. This will be achieved through a systematic selection of relevant system elements as identified in section 4.2.1, which represent system behaviour in the same way as the total of key factors identified thus far in the model. Without such a complexity reduction, no useful representation of the multiple interactions among the system elements would be possible. An unsystematic arbitrary reduction could lead to a system model causing biased appreciation, emphasising certain system aspects and not allowing, in the further course of examination, an abstraction of the expected realistic behaviour of the management consulting system. Since the author is seeking to explain the quality of management consulting performances and given that the elements of consulting quality are indispensable for developing the management consulting model, the components obtained through the operationalisation of the consulting quality are momentarily excluded from the reduction. However, the elements of consulting quality will be subject to selecting a suitable, more detailed level, which will likewise result in a reduction of elements to be considered.

In the following, the author shall systematically select a system-relevant “set” of key factors from all general key factors identified so far. For this purpose the author shall apply the so-called criteria matrix by Vester (1980/2003). In order to examine whether this system-relevant set of key factors covers all vital system areas, the author shall examine each key factor as to which system criteria it fulfils and then plot the results in a (criteria) matrix. Subsequently the set of key factors will be modified until, in a balanced manner, it reflects all aspects and criteria required to represent reality in the management consulting model.

Thus with the help of the criteria matrix, the author may select a set of key factors covering all system properties in accordance with requirements to be defined later and hence used as representative for the entire set.

The systematic reduction will be realised in 4 steps:

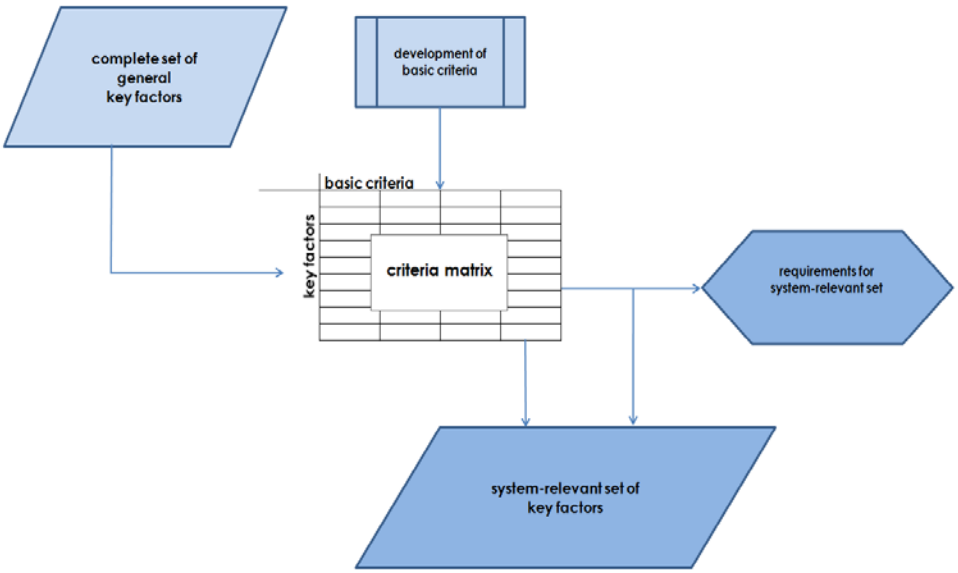
In Step 1, basic criteria will be developed to describe the properties of the general key factors identified.

In Step 2, each key factor will be described by means of the basic criteria, i. e. the author shall determine the basic criteria described fully, partially or not at all by a key factor. The result obtained in this step delivers a criteria matrix showing how the 17 system criteria as a whole are represented by the set of relevant key factors. This examination of key factors by means of the criteria matrix may then lead to a redefinition or else deletions or additions of general key factors.

Step 3 will pose requirements for the set of key factors to be selected, which will then constitute the basis for the reduction process.

In a further and final step (Step 4) in considering the requirements and with the help of the criteria matrix, the author shall select a set of key factors to be applied in the further examination interaction of the system elements. The systematic selection process is summarised in Figure 30.

Figure 30: Systematic determination of a system-relevant set of key factors (source: own depiction).



4.3.1.1.1 Basic Criteria to Describe the Properties of Key Factors

This chapter aims to develop a holistic management consulting model. In this respect, an essential basic property shall be that the key factors used are components of all relevant areas of the model. For this purpose the author shall determine different basic criteria of the system areas. Furthermore, management consulting is a socio-technical system within which information is exchanged and an immaterial performance produced. Physical basic criteria shall ensure that information-related and energetic factor properties are sufficiently considered. Also, as already described, management consulting is a dynamic system subject to changes over time. The inclusion of dynamic basic criteria shall therefore ensure that also these properties are sufficiently considered in the selection of key factors. Complex systems are also characterised by their interconnection and/or the comprehensive interrelations of elements. Finally the author shall add the basic criteria of system relations. A summarising representation of all basic criteria will complete the chapter.

- **Basic Criteria of System Areas**

A holistic view and realistic system modelling may be ensured by using different perspectives to examine the system. Vester (2003, pp.219) refers to all elements participating in or having an influence upon the system as vital areas. This is due to the primary application of his sensitivity model in human ecology. He concedes that the areas defined by him will have to be adapted according to the problem in question (Vester, 2003, pp.219). However, Vester's adaptation is not adequate for this present research object and therefore needs modification.

For this purpose the author shall refer to the Soft Systems Methodology (SSM) as developed by Peter Checkland (1981) within a different system-theoretical context. The Soft Systems Methodology (SSM) from Checkland is a qualitative technique that can be used for applying systems thinking to non-systemic situations. This methodology focuses especially on management problems not clearly defined in enterprises and hence qualifies particularly for this research object. In SSM problem-solving takes place in the real world and in a world of systemic thinking. A central concept of SSM is that the virtual reality as defined by the system is the result of a certain point of view, which may be of a different nature and design depending on the perspective applied. In SSM systems are described as "human activity systems" (Checkland, 1985, p.220).

The perspective delimitation definitions in SSM are called "root definitions" and, in a similar way to Vester's (2003) methodology, have to consider certain system areas in order to ensure a balanced system modelling (Checkland, 1999, p.87). According to the initial letters of the areas to be considered, the SSM tool is also called the CATWOE rule. Pursuant to Checkland, the system areas to be considered are as follows (Checkland, 1999, p.88):

Customers (C): Those favoured or unfavoured by the purpose-oriented system of human activities.

Actors (A): Those realising activities and being responsible for system interaction.

Transformation Process (T): The purpose-oriented activity transferring input into output.

Weltanschauung[24] **(W):** The perspective rendering the definition meaningful (philosophical background).

Owners (O): Those potentially stopping or influencing the activity.

Environment Constraints (E): frame conditions characterising a system environment.

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[24] The English original denominates this area as Weltanschauung. Some few Anglo-American authors add also the term "world view" for it.

The perspective system description pursuant to the CATWOE rule has amply validated itself in practice. Nonetheless, Wilson (1990, p.45) points to a problem with the rule, resulting from its application to the “Weltanschauung” component. In respect of the root definitions for different application areas he states that that part of the rule is often not applied (Wilson, 1990, p.45). When applying the CATWOE rule later to the research object, the “Weltanschauung” area will not be explicitly considered since the consulting quality target definition was addressed and operationalised earlier in this work.

In order to be able to apply the root definitions to the management consulting system, the author shall once more refer to the management consulting system model by Stutz (1988, p.119). The author shall precisely refer to the delimitations found there. The result of applying it to the research object is reproduced in Table 12.

Table 12: Application of the SSM CATWOE rule for the delimitation of relevant management consulting system areas (source: own depiction).

SSM root definitions	application/definition of investigation object
Customers	Depending on the consulting object, from an organisational perspective, the entire client organisation, and personally the client, are defined as those favoured or unfavoured of the global "management consulting" system (consulting in a wider sense).
Actors	Within the consulting process (consulting system in a stricter sense), the consulting performance is realised by the actors client and consultant.
Transformation process	The transformation process takes place at the core of the consulting system in a stricter sense through co-operation of the actors and refers to the consulting object and/or its content.
Owners	On the consultant side, it is the consulting organisation, on the client side, it is the client organsiation, which is defined as the instance onfluencing the consulting activities. In certain constellations, these instances may also be represented by persons coinciding with the actors.
Environment constraints	The consulting system in a wider sense's environment impacts the transformation process as an external factor.

After finding an unambiguous definition of the relevant system areas, in the following the author shall systematically add more criteria in order to ensure sufficient consideration of the physical, dynamic and interaction-relevant system aspects.

- **Energetic Basic Criteria**

For definition purposes of energetic criteria the author shall again follow Vester's sensitivity model (1980, 2003): There, differentiation is made between key factors which are predominantly energy-related (energy) and those which are information-related and communication-related (information) (Vester, 1980, p.48; Vester, 2003, p.220). In the context of management consulting the energy criterion expresses predominantly performance-productive key factors. An example for this is the "workshare" key factors of consultant (cf. 4.2.1.1.1) and client (cf. 4.2.1.2.1) or the potentials of the client enterprise (cf. 4.2.1.2.3), which in the form of an external key factor determine the possible energy for the production of a service.

The information criterion applies to all those key factors corresponding to the acquisition or transfer of information or communication regarding information among the system actors. Examples are the "information-gathering capacity" key factors of client or consultant.

The "matter" criterion as used by Vester (1980, 2003) will not be included in the criteria catalogue, given the immateriality of the service "management consulting".

- **Dynamic Basic Criteria**

The dynamism of a key factor may be described by four further criteria. Also these criteria have been taken from Vester's sensitivity model (Vester, 2003, p.221) and adapted to the research object. Key factors primarily expressing flows within the system are called flow factors. Any increase or decrease in a state of a key factor fulfilling the flow criterion will lead to an increased or decreased energy flow within the system (see above). In the context of management consulting such a flow may exist for example in the form of instructions (energy) or the transfer of information (information).

If the structural part is larger than the energy part, we speak of a structural factor. "Structure" may refer e. g. to the organisation structure or process organisation of the consulting object or the institutions involved. Centralised or decentralised problem-solving, or enterprise size are structural factors for management consulting which have an influence upon the structure or process arrangements of a project or organisation.

Further differentiations may be made according to the temporal or spatial dynamism of key factors. The temporal dynamism criterion characterises factors which may change at one and the same location and at a given time or which have an inherent temporal dynamism. In this context the author shall examine the key factors in respect of their change behaviour over time within one and the same consulting project. As an example, the author mentions the directivity of consultant behaviour, which may be subject to situational changes within the course of a project over time. In contrast, a consultant's personality structure is not subject to temporal change within the course of a project.

Hence, temporal dynamism characterises the changeability of a key factor as appearing during the course of a project.

Spatial dynamism describes "variables being different from location to location" (Vester, 2003, p.221). When transferring this thought to the context of management consulting, the criterion determines that within that context a certain key factor may assume different characteristics in other client enterprises at a given time. Co-operation intensity, for instance, is such a factor, since at a given project content it may have different characteristics in different client enterprises. Consulting task complexity, however, is not subject to spatial dynamism since it remains the same even in a different spatial context.

In the next step the author shall add further criteria describing the relations among the subsystems.

- **Basic Criteria of System Relations**

Systems may be divided into different subsystems. The global management consulting system may be subdivided into the consulting system in a stricter sense (interaction between consultant and client, also called consulting process); the consulting system in a wider sense (consultant system, client system); and the environment surrounding the consulting system. These areas are always in a close interrelation among each other and there are mutual influences overlapping the subsystems and among them.

By adding four additional system relations criteria it is ensured that the exchange relations of all individual system areas are evenly considered at the moment of selecting the key factors. If these criteria remain unattended there is the danger of selecting criteria which may form autonomous subsystems and do not have mutual interactions. Hence, the criteria ensure that realistic dynamism is modelled within the global system.

Key factors fulfilling the input criterion result from the environment and represent corresponding influences from the outside. In analogy thereto, factors having an impact from the inside outwards, are characterised by the output criterion. Thus, for example the environment conditions factor and its sub-factors fulfil the input criterion, while client enterprise potentials represent an outward influence and exert an influence upon the competitive situation in the market of the client organisation.

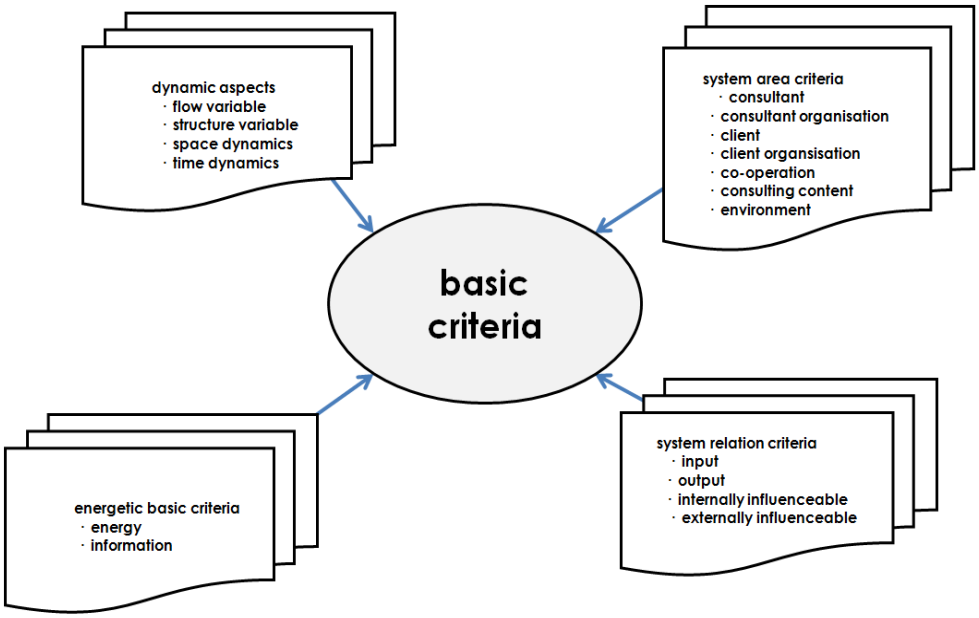
In addition it is important to choose a relationship between the influence upon the system by influenceable internal factors and that by non-steerable external factors, which approaches the model target. When key factors are influenceable by system-internal decision processes they are called "internally influenceable". Key factors fulfilling this criterion represent a marker for system autarchy (Vester, 2003, p.222).

In contrast, those key factors subject to system-external decision processes are called "externally influenceable". They represent a marker for the dependence of the system modelled (Vester, 2003, p.222).

- **Summarising the Representation of Basic Criteria**

In order to prepare for the selection of key factors relevant for system modelling, a total of seven system area criteria, two physical criteria, four system dynamics aspects, and four types of system relations were deduced. Hence, all in all, we have 17 criteria, which are summarised in Figure 31.

Figure 31: Basic criteria for the selection of the management consulting key factors (source: own depiction).



In the following section the author is now able to use these basic criteria to describe the properties of all key factors in the form of a criteria matrix.

4.3.1.1.2 Classification of System Elements by Means of the Basic Criteria

Each of the 69 general key factors identified can now be examined as to which of the 17 basic criteria are fulfilled. The result of that analysis constitutes a criteria matrix containing 69 x 17 fields as represented in Annex 1. Theoretically, each key factor may comply with 0 to17 basic criteria. The key factors may comply fully, partially or not at all with these criteria. In the criteria matrix, full criterion compliance will be expressed using “1”, partial compliance using “0.5” and non-compliance using “0”.

The criteria matrix allows for a systematic reduction of general key factors. Prior to this, however, in the following step the author shall describe the defined requirements which relevant key factors must fulfil.

4.3.1.1.3 Determination of Requirements for System-Relevant Key Factors

As discussed earlier, the system relevance analysis seeks to systematically reduce the key factors to a representative "set" of key factors. This set will then serve to develop a complexity-reduced model of interactions. In this, the set of key factor shall satisfy certain requirements in order to ensure that the original full set of factors is definitely represented. The management consulting model to be developed shall exhibit behaviour which is the same as or as similar as possible to what could be expected when considering all key factors within the consulting system. From this global requirement, partial requirements for the previously defined criteria areas may be directly deduced. These should be distributed as evenly as possible and still contained in the set of key factors to be selected.

Table 13 explicitly describes the six requirements which the reduced set of key factors should fulfil. One particularity is requirement no. 6. The factors to be chosen shall reproduce the internal and external factors, but not equally distributed, since the model focus refers to the internal consulting processes. Also, the consulting tasks are to be considered within a short to medium-term range, within which environmental factors are not subject to strong changes. Nevertheless, the environmental (external) factors shall be taken into appropriate consideration in the management consulting model.

Table 13: Requirements for the selection of system-relevant factors (source: own depiction).

Nr.	Requirements to the Reduced Set of Key Factors
A 1	Even coverage of all system areas; sufficient consideration of environmental impacts (environment)
A 2	Even consideration of energetic basic categories (energy, information)
A 3	Consideration of dynamic categories: flow variable and structure variable
A 4	Different dynamics in temporal development expected
A 5	Different dynamics in interactions expected
A 6	Relations system/environment and environmental impacts on the system should be considered sufficiently

Now that all key factors have been described according to the 17 criteria in a matrix and the requirements derived to a reduced set, the reduction as such may be carried out.

4.3.1.1.4 Derivation of System-Relevant Key Factors

According to Vester (2003, p.224) a system model ideally has between 20 and 40 elements.[25] Since the key factors to be selected represent only a part of the elements of the management consulting model, a reduction of the 69 key factors identified to between approx. 25 and 30 factors seems convenient. Following the indications by Vester (2003), this number ensures that a sufficient capacity of approx. 15 to 20 elements remain for the consulting quality indicators to be added later.

For the selection process, the author shall use the criteria matrix. After a test selection of a set of key factors, by means of columns sums and their mutual comparison, the indicators characterising the set properties may be verified. In the event of the requirements not being fulfilled, some factors may be removed from the set and/or new ones added, upon which the indicator and/or the fulfilment of requirements may be verified again. This process should then be repeated until a set of factors satisfying the requirements has been found. For the scope of this work, the reduction process was realised with an Excel spreadsheet.

A total of 27 key factors was selected, all properties of which meet the requirements defined. Prior to examining these factors as to the fulfilment of requirements, the author shall briefly present them in Table 14.

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[25] The value was not chosen arbitrarily but results from a system's basic properties to be covered by the system elements. For more in-depth information regarding the ideal minimum and maximum number of the set of model elements, the author refers to Vester (2003, p.224].

Table 14: Selection of system-relevant key factors as a subset of general key factors of the management consulting system (source: own depiction).

Code	Relevant System Elements of the Management Consulting System
KF 1	Consultant's possibility of influencing the problem-solving
KF 2	Consultant's mode of conducting the consultation
KF 3	Person-related consultant competence
KF 4	Consultant's personality structure
KF 5	Consultant's experience in consulting
KF 6	Consultant's workshare
KF 7	Coinciding focus of perception of the consulting objective by both consultant and client
KF 8	Cooperation-related consultant competence
KF 9	Consultant organisation's willingness to co-operate
KF 10	Impact of environmental conditions on consultant organisation
KF 11	Client's willingness to learn and co-operate
KF 12	Client's consulting capacity
KF 13	Client's willingness to trust
KF 14	Client's workshare in consultation
KF 15	Client's capacity to provide information
KF 16	Size of client organisation
KF 17	Client enterprise potentials
KF 18	Impact of environmental conditions on client organisation
KF 19	Client organisation's enterprise culture and strategy
KF 20	Co-operation intensity
KF 21	Consulting task complexity
KF 22	Repetition frequency of consulting issue (of consulting problem)
KF 23	Structuring degree of consulting problem
KF 24	Use of standardised consulting methods
KF 25	Use of standardised consulting tools
KF 26	Use of electronic media and software
KF 27	Project controlling intensity
KF 28	Consultant's consulting potential quality
KF 29	Client's consulting potential quality
KF 30	Consultant's consulting process quality
KF 31	Client's consulting process quality
KF 32	Consulting result quality

After the number of key factors has been systematically reduced, in the following section the author may now add indicators from the already realised operationalisation of the consulting quality (section 4.1).

4.3.1.2 Selection of the Appropriate Level of Indicators

In addition to the relevant key factors, the author must finally include suitable indicators in the model in order to enable the measurement of consulting quality. Therefore consulting quality shall be added to the model as a collective element for the indicators and 27 relevant key factors of the management consulting system model (cf. table 14). As a result, we obtain a total of 32 system elements (KF1-KF32), thereby observing the ideal number of 20 to 40 system elements stipulated by Vester (2003).

Table 15: Selected consulting quality elements of the management consulting system (source: own depiction).

Code	Relevant System Elements of the Management Consulting System
KF 28	Consultant's consulting potential quality
KF 29	Client's consulting potential quality
KF 30	Consultant's consulting process quality
KF 31	Client's consulting process quality
KF 32	Consulting result quality

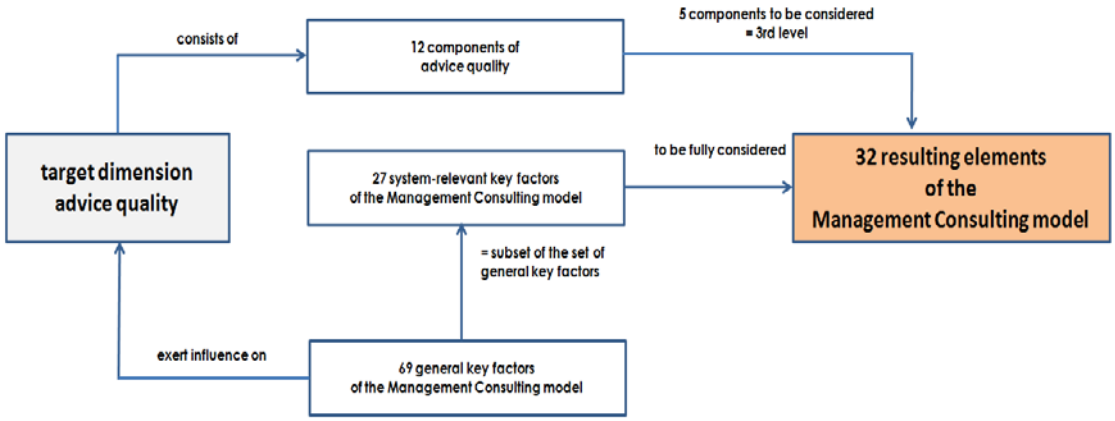
The author has thus completed the selection of elements for the management consulting model. The following shall briefly summarise the selection process.

4.3.1.3 Concluding Representation of the Selection Process

Figure 32 represents the derivation and systematic selection process for the system elements of the management consulting model. The 32 elements resulting from the selection process were derived from the consulting quality components (cf. 4.1) and the relevant key factors (cf. 4.2) exerting an influence upon these elements.

The 27 system-relevant key factors (cf. 4.3.1.1) determined through the application of the 17 criteria represent a genuine subset of the 69 general key factors and are included without modifications in the management consulting model, while the consulting quality components are considered only at the third aggregation level (5 sub-elements).

Figure 32: Summarising reproduction of the selection process of system-relevant key factors of the management consulting system (source: own depiction).



Upon determining the 32 system-relevant elements, the author may in the following now carry out an analysis of the mutual interactions among the system elements of the management consulting model.

4.3.2 Identification of the Management Consulting System Structure

4.3.2.1 Coding the System-Relevant Key Factors

The determination mutual influence intensities of the system-relevant key factors and consulting quality elements serves the establishment of roles occupied by these key factors in the global management consulting system and/or the management consultant subsystem. Since the role of a key factor cannot be established by itself alone but only from the entirety of its interactions with all other system elements and further their interactions among each other (Vester, 2003, p.226), the following step consists in estimating, against a cybernetic background, the influences of each system-relevant key factor within the management consulting system upon all the other key factors within that system. Against this background, the author shall first examine the mutual influence intensities within the management consulting system as a whole and only then make a statement concerning which roles are occupied by which key factor within the management consultant subsystem.

If in determining the mutual influence intensities the author focused exclusively on the management consultant subsystem, he would run the risk of not sufficiently considering the interrelations among the subsystems and possibly obtain inacceptable results regarding the establishment of roles.

Hence it is the aim of this analysis to be able to make statements as to which key factors exert stabilising or destabilising effects upon the system when the latter undergoes changes. With this information the author may make a qualitative statement regarding the structure of the key factors within the system, thereby becoming able to identify those key factors in the subsystem which may be considered as independent or largely independent of the behaviour of other key factors. The independent key factors may be characterised as management consultant subsystem determinants.

The examination of interactions is realised by means of a so-called influence matrix[26], which allows for a holistic consideration of all mutual influences among the system elements. This influence matrix, also called intensity relations matrix, is a kind of network analysis and has its origins in the method of networked thinking for the solving of complex problems. It was developed by Frederic Vester and is also known as the "paper computer" (Vester, 2003, pp.226; Vester, 1980, pp.36). The influence matrix allows for a joint estimation of the interconnected influences among the system elements (key factors) and hence their roles with regard to the aspects of dominance (acting) and susceptibility (reacting), and also with regard to their participation in interaction (from inert to critical). This makes the role of system elements (key factors) visible within the system. This simple tool makes it possible to identify the interaction intensities within a complex network of factors. Hence, in system analyses this allows identifying the decisive factors for subsequent examinations.

From the graph-theoretical point of view, the influence matrix is a square adjacency matrix, making a statement about the connections among the different model elements. The adjacency matrix entries indicate whether with regard to an influence the element assigned to a line is directly or indirectly connected to the element assigned to a column. The value entered indicates the influence intensity and generally may adopt the following states:

$$f_w(e_{ij}) = \begin{cases} \geq : \textit{if there is an interaction by source element } v_i \textit{ regarding target element } w_j \\ 0 : \textit{if not} \end{cases}$$

A source element vi's relative influence intensity fw(eij) with regard to target element wj is measured on an ordinal scale in values ranging from 0 to 3 (see following Table 16). A complete adjacency matrix of the influence intensities for all system elements is shown in Annex 2. The author would like to note here that the matrix does not represent measurement results or exact mathematical results but rather a first estimation[27] seeking a preliminary determination of the relative roles within the system. As for the determination of matrix contents the author should add that it not only takes into account evident and direct relations but all possible influences occurring at any point in time (Vester, 2003, pp.201). Hence, apart from direct cause-and-influence relationships the influence matrix considers also indirect influences.

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[26] Also called "Adjacent Matrix".

[27] The estimations were realised based on research publications, the author's experience and discussions with management consultants.

Table 16: Classification of influence intensities following Vester
(source: adapted from Vester, 2003, p.227).

Classification of influence intensity fw(eij)	Description
0	None or weak influence (no relation)
1	Strong modification of source factor leads to weak modification of target factor (weak relation)
2	Strong modification of source factor leads to equally strong modification of target factor (mean, approximately propotional relation)
3	Weak modification of source factor causes strong modification of target factor (strong, disproportionate relation)

By means of the influence matrix so-called active and passive sums may be formed for each element.

The active sum (ASi) results from the total of influence intensities fw(eij) exerted by a factor upon all other model elements and thus enables an assessment of how strong the effect of change in an element will be upon the rest of the global system. What is actually added is the influence intensities of all the outgoing relations of a source element. The active sum (AS) in the adjacency matrix (Annex 2) appears as a line sum of influence intensities fw(eij). It is calculated for any element i with n total system factors, as follows:

$$AS_i = \sum_{j=1}^{n} f_w(e_{ij})$$

The passive sum (PSi) represents the total of influences exerted upon a factor and is a measure for the reaction susceptibility of a factor when changes occur within the system. In this case, what is calculated is the sum of influence intensities of all incoming relations with regard to an element. It may be determined by adding the values in a column and in analogy to the AS is calculated for a factor i as follows:

$$PS_i = \sum_{i=1}^{n} f_w(e_{ji})$$

The intensity properties of all elements may be introduced in a typology. Thus Gomez&Probst (1999/2004) classify element properties according to their intensities in four types:

1. **Active:** Elements having a strong influence upon others but being weakly influenced by others.

2. **Inert:** Elements having a weak influence upon others and being weakly influenced by others.

3. **Critical:** Elements having a strong influence and being strongly influenced by others.

4. **Passive:** Elements having a weak influence upon others but being strongly influenced by others.

By means of the above typology, the author may now determine the independent management consulting system key factors. In finding the independent system-relevant key factors according to the above typology the areas "active" and "inert" are decisive: an active system element receives little influence by other system elements and may hence be considered as largely independent of the behaviour of the other system elements. An inert system element has only weak influence upon other system elements and is only weakly influenced by the behaviour of the other system elements. Accordingly, the system elements ranging both in the inert and active areas may be described as independent or largely independent.

4.3.2.2 Role Assignment of System-Relevant Key Factors

The scatter diagram is an adequate graphic representation of quantitative data. Each pair of data (xi; yi) is transferred to a scatter diagram. The transfer of the rating results is made in such a way that the ratings of each influence factor are plotted through the active sum (y-axis) and passive sum (x-axis). Scaling on the x and y-axes always starts at 0. The final value on the x-axis is the highest passive value resulting, while the final value on the y-axis is the highest active value (Vester, 2003, p.236).

It may sometimes happen that one key factor stands out against the others with a very high active or even passive sum. As this key factor would determine the axis range, it might cause distortions regarding the respective positions of the other key factors. In such a case the division into the 4 fields described and their interpretation would not make sense anymore. Therefore, if one key factor exhibits a disproportionally high active or even passive sum the diagram is realised temporarily without that key factor.

The diagram is divided horizontally and vertically; 4 fields appear, which are important for the subsequent proceedings. They represent the active, inert, critical and passive fields respectively (Vester, 2003, p.236). For the further investigations the author will have to pay attention to the key factors in the active and inert fields since it is there that we find the influential (key) factors considered independent or largely independent of the behaviour of other key factors. This means that the independence represents the degree of reaction susceptibility of a key factor in respect of the appearing influence intensities fw(eij), caused by other key factors. They indicate how strongly a key factor can be modified within the system.

Vester (2003, p.236) divides the diagram horizontally and vertically into halves of equal sizes. Accordingly, the result is the following role assignation in the management consulting model (see Annex 3).

- **Elements with active influence behaviour**

The system elements and/or key factors in the active system area exhibit active influence behaviour and may thus serve as effective levers to change a system (Vester, 2003, p.235). Since these key factors have a strong influence upon other key factors within the system but they themselves are not subject to much influence, they are to be considered as independent of the behaviour of other key factors, i. e. they assume an independent position within the system.

The key factors with the highest active values are e. g. consulting task complexity (KF21 = AS:44; PS:10), the consultant's consulting experience (KF5 = AS:38; PS:15); cooperation-related consultant competence (KF8 = AS:36; PS:21); repetition frequency of the consulting issue (KF22 = AS:32; PS:2); person-related consultant competence (KF3 = AS:30; PS:18); and client enterprise potentials (KF17 = AS:23; PS:6). This means that consulting projects exhibit a very high activity in structural factors and individual consultant properties.

- **Elements with inert influence behaviour**

As the elements in this area exhibit a high inertia, the author may assume high system sensitivity with large self-regulation mechanisms. These factors are not suitable for active system steering but only for self-regulation. However, since they are not or only weakly influenced by other system elements, they do assume an independent position within the system in exactly the same way as the system elements in the active area.

The system elements in the inert area are: the consultant's personality structure (KF4 = AS:2; PS:2); the willingness of the consulting organisation to co-operate (KF9 = AS:20; PS:11); the influence of environmental conditions on the consultant organisation (KF10 = AS:6; PS:0); the size of the client's organisation (K16 = AS:16; PS:2); the influence of environmental conditions on the client's enterprise (KF18 = AS:19; PS:0); the corporate culture and strategy of the client organisation (KF19 = AS:21; PS:4); the consultant's consulting potential quality (KF28 = AS:16; PS:10); the client's consulting potential quality (KF29 = AS: 14; PS: 11); the consulting process quality on the consultant side (KF30 = AS:15; PS:12); and the consulting process quality on the client side (KF31 = AS:13; PS:13).

- **Elements with critical influence behaviour**

In the critical model area there are accelerators and catalysts which may help to jump-start the system. There is the danger of an uncontrolled system build-up and knock-over when these elements change, thus they require very cautious treatment.

The following system elements show critical behaviour: the consultant's degree of influence upon problem-solving (KF1 = AS:30; PS:38), the consultant's workshare (KF6 = AS:28; PS:38), which has one of the largest influences upon the global system and hence sustainably determines the consulting quality target dimension; the client's willingness to learn and co-operate (KF11 = AS:28; PS:40); the client's consulting capacity (KF12 = AS:25; PS:33); the client's workshare (KF14 = AS:27; PS:38); the client's capacity of providing information (KF15 = AS:24; PS:33); the co-operation intensity (KF20 = AS:32; PS:43); the degree of structuring of the consulting problem (KF23 = AS:34; PS:24); the use of standardised consulting methods (KF24 = AS:26; PS:37); and the use of electronic media and software (KF26 = AS:26; PS:38).

- **Elements with passive influence behaviour**

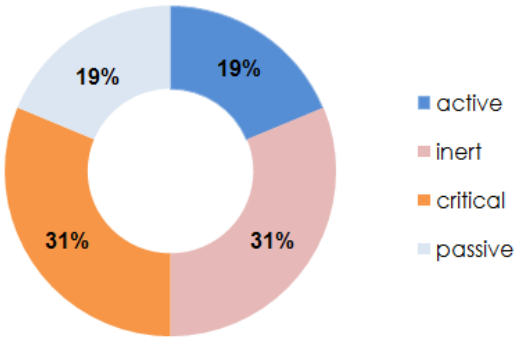
Steering intervention in the passive area will merely cause corrections of a rather cosmetic nature. Such action amounts to symptomatic treatments. The factors in this area may thus primarily be used as indicators.

As expected, we find the following elements in this segment,: the mediation character of the consultant's behaviour (KF2 = AS:21; PS:38), homogeneous perception of the consulting target by both consultant and client (KF7 = AS:17; PS:38), the client's willingness to trust the consultant (KF13 = AS:18; PS:37), the use of standardised consulting instruments (KF25 = AS:20; PS:37), the intensity of project controlling (KF27 = AS:16; PS:27) and consulting result quality (KF32 = AS:1; PS:41), which at the beginning of this work could all be identified as essential symptoms of low consulting satisfaction.

4.3.2.3 Concluding Representation of the Management Consulting System Structure

Figure 33 provides an overview of the influence behaviour of the key factors within the system. All in all an astonishingly balanced distribution is perceived. About one fifth of factors show active influence behaviour, a fact which indicates certain system changeability and influenceability. The same number of factors have properties which make them unsuitable for stabilising system steering. The critical area is determined to an extent of almost one third by factors representing accelerators and catalysts which may be suitable to jump-start the system. This however also has the inherent danger of an uncontrolled system build-up and knock-over. Again an identical number of factors exhibit major or minor inertia, an indicator of high system sensitivity with large self-regulation mechanisms. These factors are not suitable for active system influencing but only self-regulation.

Figure 33: Distribution of role behaviours of system-relevant key factors and elements of consulting quality (source: own depiction).



4.3.3 Constitution of the Management Consultant Subsystem

In the preceding section the author determined the roles of system-relevant elements within the management consulting system. The role assignment also provides the system structure for the management consulting model. The following Table 17 reproduces the result of this analysis in an overview.

As mentioned earlier, the active and inert system elements constitute determinants of the management consulting system, which are independent or largely independent of the behaviour of other system elements (key factors).

With these key factors, the author may now appropriately describe the management consulting model. By their presence within the system the independent key factors enable its identification as (largely) unchanged, even in different consulting situations and at different points. The dependent system elements, according to the consulting task, must constantly adapt to new consulting situations by which new and different system structures and/or systems arise.

Table 17: The role structure in the management consulting system (source: own depiction).

The Management Consulting System		
Code	**Key factor's name**	**Position in the diagramm (quadrant)**
KF 1	Consultant's possibility of influencing the problem-solving	Critical field (quadrant III)
KF 2	Consultant's mode of conducting the consultation	Passive field (quadrant IV)
KF 3	Person-related consultant competence	Active field (quadrant II)
KF 4	Consultant's personality structure	Inactive field (quadrant I)
KF 5	Consultant's experience in consulting	Active field (quadrant II)
KF 6	Consultant's workshare	Critical field (quadrant III)
KF 7	Coinciding focus of perception of the consulting objective by both consultant and client	Passive field (quadrant IV)
KF 8	Cooperation-related consultant competence	Active field (quadrant II)
KF 9	Consultant organisation's willingness to co-operate	Inactive field (quadrant I)
KF 10	Impact of environmental conditions on consultant organisation	Inactive field (quadrant I)
KF 11	Client's willingness to learn and co-operate	Critical field (quadrant III)
KF 12	Client's consulting capacity	Critical field (quadrant III)
KF 13	Client's willingness to trust	Passive field (quadrant IV)
KF 14	Client's workshare in consultation	Critical field (quadrant III)
KF 15	Client's capacity to provide information	Critical field (quadrant III)
KF 16	Size of client organisation	Inactive field (quadrant I)
KF 17	Client enterprise potentials	Active field (quadrant II)
KF 18	Impact of environmental conditions on client organisation	Inactive field (quadrant I)
KF 19	Client organisation's enterprise culture and strategy	Inactive field (quadrant I)
KF 20	Co-operation intensity	Critical field (quadrant III)
KF 21	Consulting task complexity	Active field (quadrant II)
KF 22	Repetition frequency of consulting issue (of consulting problem)	Active field (quadrant II)
KF 23	Structuring degree of consulting problem	Critical field (quadrant III)
KF 24	Use of standardised consulting methods	Critical field (quadrant III)
KF 25	Use of standardised consulting tools	Passive field (quadrant IV)
KF 26	Use of electronic media and software	Critical field (quadrant III)
KF 27	Project controlling intensity	Passive field (quadrant IV)
KF 28	Consultant's consulting potential quality	Inactive field (quadrant I)
KF 29	Client's consulting potential quality	Inactive field (quadrant I)
KF 30	Consultant's consulting process quality	Inactive field (quadrant I)
KF 31	Client's consulting process quality	Inactive field (quadrant I)
KF 32	Consulting result quality	Passive field (quadrant IV)

Table 17 shows which of the system-relevant key factors are located in the active and inert areas of the management consulting system.

In examining the management consultant subsystem determined by key factors KF1 to KF10 and KF20, table 17 also shows which of these key factors are (largely) independent.

Key factors KF3, KF4, KF5, KF8, KF9, and KF10 are in the active and inert system areas and may thus be identified as independent key factors of the management consultant subsystem.

With this identification of the independent, system-relevant key factors the management consultant subsystem has been sufficiently determined and may be compared with the astrological management subsystem, once the latter has been identified.

The following overview exhibits the influence structure of the system-relevant key factors in the management consultant subsystem, within the management consulting system.

Table 18: The influence structure of the system-relevant key factors in the management consulting system (own source).

The Management Consulting System			
Code	**Key factor**	**Position in the diagram (quadrant)**	**Key factor's role in the management consulting system**
KF 1	Consultant's possibility of influencing the problem solving	Critical field (quadrant III)	dependent
KF 2	Consultant's mode of conducting the consultation	Passive field (quadrant IV)	dependent
KF 3	**Person-related consultant competence**	**Active field (quadrant II)**	**independent**
KF 4	**Consultant's personality structure**	**Inactive field (quadrant I)**	**independent**
KF 5	**Consultant's experience in consulting**	**Active field (quadrant II)**	**independent**
KF 6	Consultant's workshare	Critical field (quadrant III)	dependent
KF 7	Coinciding focus of perception of the consulting objective by both consultant and client	Passive field (quadrant IV)	dependent
KF 8	**Cooperation-related consultant competence**	**Active field (quadrant II)**	**independent**
KF 9	**Consultant organisation's willingness to co-operate**	**Inactive field (quadrant I)**	**independent**
KF 10	**Impact of environmental conditions on consultant organisation**	**Inactive field (quadrant I)**	**independent**
KF 11	Client's willingness to learn and co-operate	Critical field (quadrant III)	dependent
KF 12	Client's consulting capacity	Critical field (quadrant III)	dependent
KF 13	Client's willingness to trust	Passive field (quadrant IV)	dependent
KF 14	Client's workshare in consultation	Critical field (quadrant III)	dependent
KF 15	Client's capacity to provide information	Critical field (quadrant III)	dependent
KF 16	**Size of client organisation**	**Inactive field (quadrant I)**	**independent**
KF 17	**Client enterprise potentials**	**Active field (quadrant II)**	**independent**
KF 18	**Impact of environmental conditions on client organisation**	**Inactive field (quadrant I)**	**independent**
KF 19	**Client organisation's enterprise culture and strategy**	**Inactive field (quadrant I)**	**independent**
KF 20	Co-operation intensity	Critical field (quadrant III)	dependent
KF 21	**Consulting task complexity**	**Active field (quadrant II)**	**independent**
KF 22	**Repetition frequency of consulting issue (of consulting problem)**	**Active field (quadrant II)**	**independent**
KF 23	Structuring degree of consulting problem	Critical field (quadrant III)	dependent
KF 24	Use of standardised consulting methods	Critical field (quadrant III)	dependent
KF 25	Use of standardised consulting tools	Passive field (quadrant IV)	dependent
KF 26	Use of electronic media and software	Critical field (quadrant III)	dependent
KF 27	Project controlling intensity	Passive field (quadrant IV)	dependent
KF 28	**Consultant's consulting potential quality**	**Inactive field (quadrant I)**	**independent**
KF 29	**Client's consulting potential quality**	**Inactive field (quadrant I)**	**independent**
KF 30	**Consultant's consulting process quality**	**Inactive field (quadrant I)**	**independent**
KF 31	**Client's consulting process quality**	**Inactive field (quadrant I)**	**independent**
KF 32	Consulting result quality	Passive field (quadrant IV)	dependent

System-relevant key factors of the Management Consultant subsystem

System-relevant key factors of the Management Consultant subsystem

4.4 Summary and Conclusion

In Chapter 4 the author conceived the management consulting system. The conception was based on secondary data.

In order to be able to identify and describe the two consultancy concepts, two methodical procedures from systems-oriented management theory have been chosen: On the one hand the sensitivity model as developed by Vester (1980, 2003). It shall be used to establish the structure of the system-determining key factors of the consulting systems. For this purpose their respective (general) key factors are derived from literature, experience regarding the system-determining perspectives of consultant, client and consulting process and are represented in an overview. Then the complexity of the system is reduced. Without such a reduction the management consulting system's structure of elements (key factors) could not be described and represented. This complexity reduction results in the system-relevant key factors. In order to determine the independence or lack of independence of the key factors within the consulting system, the author examines their respective system behaviours (roles). In this respect the author methodically uses the systems-oriented 'net-worked thinking' procedure (initially developed by Vester, 1980, and developed further mainly by Gomez&Probst, 1999). It allows the determination of the role behaviour exhibited by each system-relevant element (key factor). The mathematical basis for the generation of a "network" is the graph theory. Through this type of modelling the structure of the consulting system is depicted in a transparent and comprehensive manner. This allows statements regarding which key factors in the management consulting system are to be considered as independent. As a result, the management consulting system was described from a systems-oriented perspective.

Chapter 5: Astrological Consultant Model: Conceptually Designed by Secondary Data Collection

5.1 Operationalisation of the Target Dimension Consulting Quality

After conceptualising the management consultant model of reference (Chapter 4), in this chapter the author shall develop the astrological consultant model.

From Section 2.4 it may be concluded that astrological business consulting is a consulting service which, like management consulting, fulfils the conceptual requirements of both a service and consulting. Apart from that, it should be noted that - just like management consulting - astrological consulting is employed in the area of business consulting and thus in respect of its system structure and elements will probably exhibit similarities regarding the management consulting system. Against this background, in developing the astrological consulting system, in respect of the astrological consultant subsystem the author shall rely on the fundaments elaborated in chapter 4 (management consulting system). Concretely, this means that the general key factors collected there shall also be the basis of the astrological consulting system. In the event of different or further key factors emerging for the astrological consulting system from literature or the background talks, they are to be considered within the astrological consulting system.

Both systems, that of management consulting as well as that of astrological business consulting, should be seen against the background of their different contexts. Direct comparison between management consulting and astrological consulting is hence possible only if there is a common basis for such comparison. Consulting quality is such a common basis for comparison. It is also an adequate element with which to examine the consulting process (consulting in a stricter sense) as to its contribution in respect of the success of consulting. Astrological business consulting aims to provide a client with the best possible quality in consulting. Thus, consulting quality shall be considered as a target dimension of the consulting process.

According to the procedure described in Section 3.8, also in this chapter the author will carry out steps 1 through 5. In the following, the author shall commence the operationalisation of the consulting quality target dimension, according to step 1. After concretising the target dimension, the author shall identify the key factors influencing the target dimension (step 2). In order to obtain a system-relevant set of system values, in step 3 the author shall carry out a reduction towards the essential system-relevant key factors (cf. Vester, 2003, p. 213). Once all key factors have been captured and reduced to a sufficient number, it remains still open what the interrelations among them are (interconnected system statics) and how they interact (interconnected system dynamics). The result will be a representation of the structure and behaviour of the global system. Hence, step 4 establishes the interrelations among the factors and the interactions among each other. Ultimately the author shall seek to represent the network (Gomez&Probst, 2004). After identifying, in step 4, the interrelations and interactions among the system-relevant key factors, so as to detail the model's network, among the total of system-relevant key factors in step 5, the author shall identify all those completely or largely independent from the behaviour of the other key factors. In this way the author shall then be in a position to determine the astrological consultant model.

In analogy to the statements in Section 4.1, within the context of consulting quality operationalisation, the author shall consider the quality dimensions of the consulting potential consulting result and consulting process. Figure 34 summarises the operationalisation of consulting quality in respect of the three dimensions potential quality, process quality and result quality.

Figure 34: Operationalisation of consulting quality of astrological consultation (source: own depiction).

consulting quality	consulting potential quality	consultant system's consulting potential quality	specification potentials
			contact potentials
		client system's consulting potential quality	intergration potentials
			interactivity potentials
	consulting result quality	final process result quality	content quality
			transmission quality
		follow-up quality	quality of content
			transmission quality
	consulting process quality	consulting process quality on consultant system side	process behaviour in regard of specification potentials
			process behaviour in regard of contact potentials
		consulting process quality on client system side	process behaviour in regard of intergration potentials
			process behaviour in regard of interactivity potentials
1st level	**2nd level**	**3rd level**	**4th level**

5.2 Theoretical Model of Astrological Business Consulting System

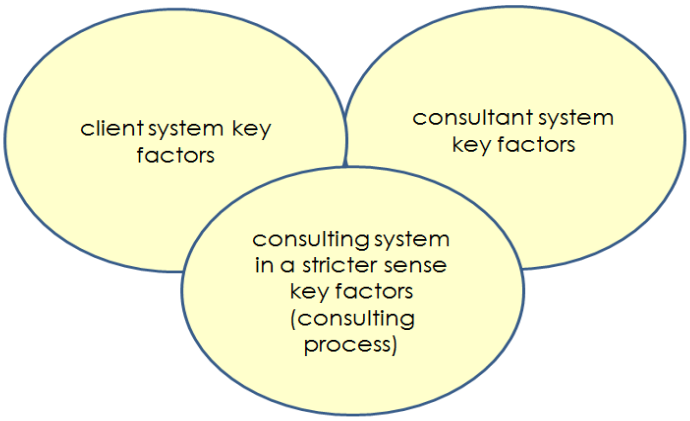
Detailed comprehension regarding the direct or indirect causal interrelations which have an impact on the consulting quality target dimension is indispensable for target-oriented action within the system. In the same way as the management consulting system, the astrological consulting system is also a complex global system with the most varying elements dynamically interacting within a network structure. After operationalising the consulting quality, in the following the author shall successively identify the system factors which determine the variability of the system and influence the target dimension.

On the one hand the system elements to be identified influence the behaviour of the global system and on the other hand they themselves are influenced by other factors. Thus, they may appear as both determinants and variables. To make things simpler, the author neutrally denominates all elements as key factors, as the author shall first examine their general influence character upon the system.

The following key factor identification is based upon the astrological consulting state of research, empirical investigations and reports, data from literature, but also qualitative expert interviews. In this case the author relied rather upon expert interviews, since only very few empirical investigations and contributions could be found in literature.

In analogy to the statements in Chapter 4, the author shall likewise examine the astrological consulting system from different perspectives in order to gain a comprehensive view of the research object. The following key factor deductions regarding the astrological consulting system reflect the perspectives of consultant, client and consulting object.

Figure 35: Examination of the consulting system key factors considering different observation perspectives (source: own depiction).



5.2.1 Identification of Key Factors within the Astrological Business Consulting System

The author derives the elements of the astrological consulting system from the three consulting perspectives mentioned above: astrological consultant, client and consulting process. In the following, however, only those key factors shall be considered which are different from those of the management consulting system (Chapter 4).

5.2.1.1 Perspective Consultant

5.2.1.1.1 Consultant-Individual Key Factors

From the astrological consultant's perspective, first of all the key factor "consultant authenticity" should be named. Typically, astrological consultants move within situations independent of hierarchies, power and subordination. Their stated intent is to give the client the opportunity and freedom to approach astrological issues without any prejudice. Mutual trust is hence an important pre-condition for successful consulting.

In granting the mandate, it is frequently the case that the fee agreed does not play a decisive role. Rather, a consultant's seriousness and authenticity are considered much more important. Typically, an astrological consultant assumes an executive role, dealing with the client at eye level, from on equal position. This is an important prerequisite for achieving client acceptance and recognition as an interlocutor. In this, the consultant's authenticity plays a decisive role. Authentic consultants act based on their own convictions. Self-discovery, objective self-knowledge and the courage to be different are important parts of this.

Authentic people have charisma. "Originality", "genuineness" and "naturalness", in short "authenticity", is attractive to others. Someone living and acting in harmony with his or her values makes a true and trustworthy impression on a client. Acting in this way, a consultant becomes transparent, "real" and "trustworthy" to the client. The client gains security from a consultant attitude producing a comfortable atmosphere throughout the entire consulting process.

A further key factor to be mentioned is the "consultant's self-reflection capacity", an ability generally conceived as a basic attitude within the consulting process. A consultant should not try to influence a consulting situation according to his or her own ideas. Consultants should show modesty and responsibility regarding their possibilities, especially with regard to what they say and how they say it.

5.2.1.1.2 Co-operation-Oriented Key Factors

Co-operation in consulting is marked by the interaction between consultant and client (Mulligan&Barber, 2001, p.83). Consultant contact within the client organisation may be an indicator for the intensity of co-operation.

Intensive cross-level consultant contact within the client organisation creates good conditions for realising the problem-solving conception. At the beginning of a consulting process there is typically an informational conversation to outline the problem situation and to find out whether a possible initial trust relation for co-operation can arise. It may therefore be helpful if already in this early stage the consultant has established good contact with and/or within the client.

The first consulting stage focuses on accurately probing the client's issue and jointly seeking a suitable action strategy and target definition. The more intensive the consultant's contacts are within the client organisation, the more the clients will be prepared to sufficiently trust the consultant and accept his or her problem-solving conception.

Seeking and producing commonality between consultant and client also contributes to creating a trustful starting point for the consulting process, in favour of both the client and the consultant. Typically, consultants want to express their views and explain to the client their opinion of an issue as well as to convince them of their points of view. To produce commonality with their interlocutor is something which few consultants bear in mind. Trust, however, is the basis for consensus. Consensus allows establishing commonality as to how the consultant intends to deal with an issue and/or a situation. Without trust, the best possible result is a compromise. However, compromises are the result of power games and do not endure.

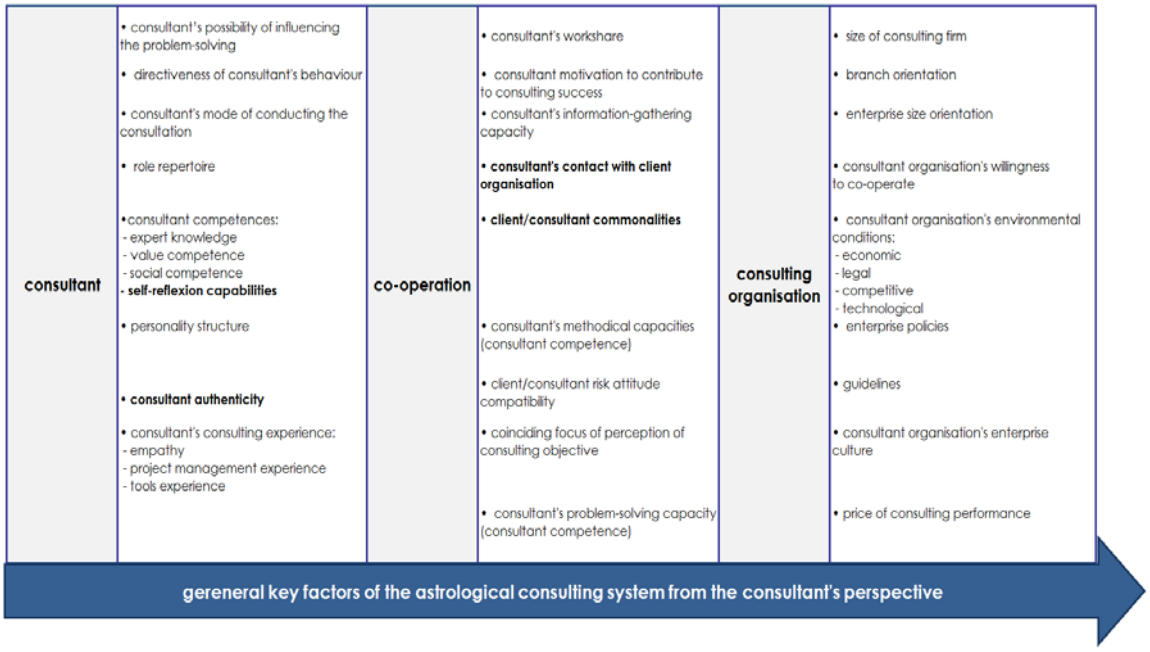
As soon as a party involved in consulting thinks that power relations have changed, it will try to modify the compromise reached in its favour, something which ultimately may have a negative effect on the consulting quality.

5.2.1.1.3 Key Factors Reflecting the Consultancy Organisation Perspective

As a relevant structural consultancy organisation one should mention the immediate environment such as for example time constraints and travel commitments. Usually, astrological consultations take place in small or relatively small consulting practices, which means that also amenity factors, such as heat, toilets, may play a role in consulting.

Figure 36 represents the general key factors derived for the astrological consulting system, as resulting from the consultant perspective analysis and supposedly directly or indirectly exerting an influence upon the consulting quality of the astrological consulting system. Those key factors appearing as different in comparison with the management consulting system are displayed in black print.

Figure 36: General key factors on the astrological consultant side (source: own depiction).



5.2.1.2 Perspective Client

In analogy to Section 5.2.1.1 the author shall focus on a client-individual, co-operation-oriented and organisational perspective, wheras once again, the general key factors (management consulting system) derived in Chapter 4 (4.2) shall provide the basis for the identification process.

5.2.1.2.1 Client-Individual Key Factors

From the client perspective, no further key factors were identified compared with the management consulting system.

5.2.1.2.2 Cooperation-Oriented Key Factors

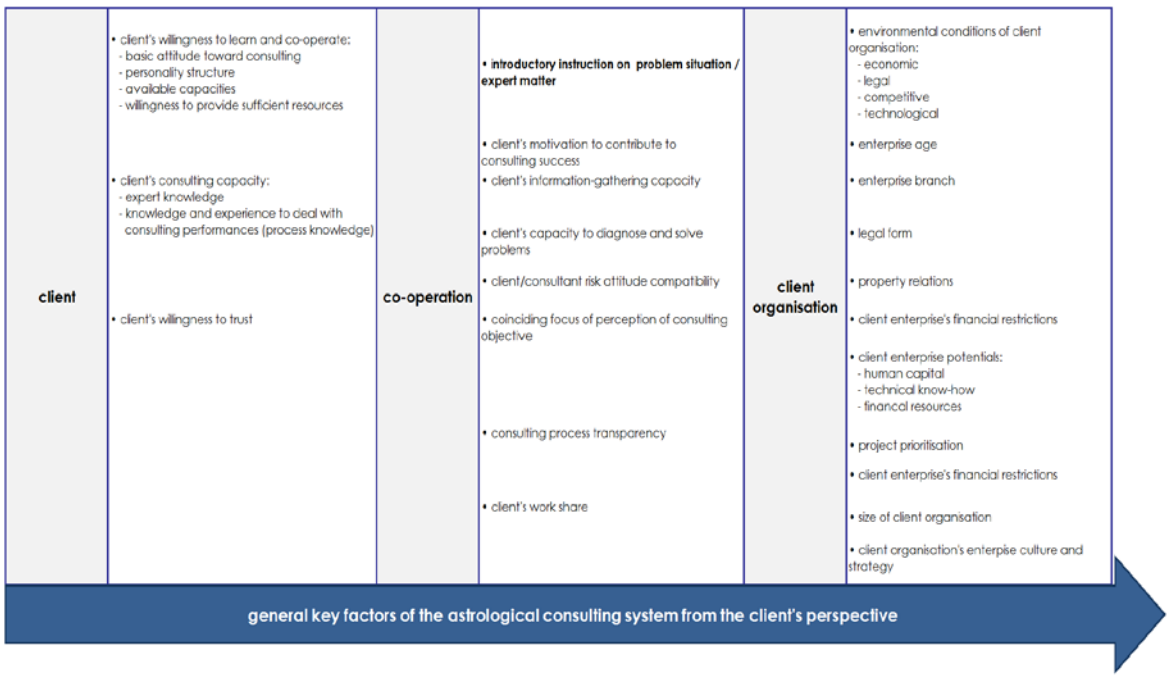
Generally, an introductory instruction to the client in problem-solving and the expert matter is considered structurally relevant for the consulting quality. Such instruction shall enable the astrological consultant to quickly and adequately familiarise with problem-solving. This is already the moment where the first decisions in respect of the problem-solving conception are taken on the consultant side. It is thus considered important to familiarise the consultant in depth with the problem situation and its frame conditions. But it also provides an opportunity for the client to once again reflect on the problem situation.

5.2.1.2.3 Key Factors Reflecting the Client's Organisation Perspective

From the client organisation perspective, no further key factors were identified compared with the management consulting system.

Figure 37 offers a comprehensive overview of all key factors identified from the client perspective; the key factors different from those of the management consulting system are displayed in black print.

Figure 37: General key factors on the client side (source: own depiction).

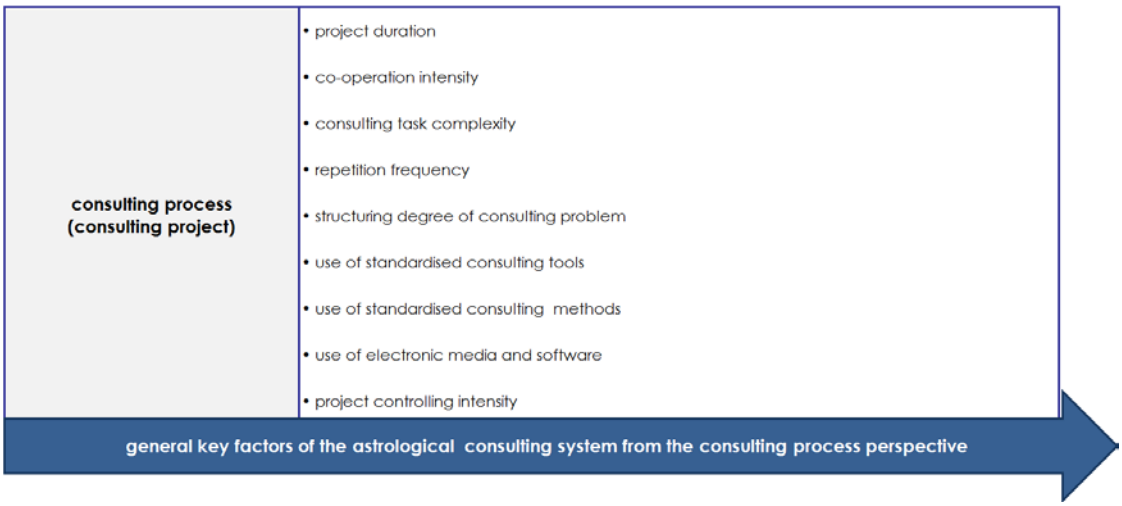


5.2.1.3 Perspective Consulting Process

At the consulting process level, no further key factors were identified compared with the management consulting system.

The author would like to mention that project controlling intensity within the astrological business consulting system is not considered a relevant system value, since most astrological consultations do not reach a scale where the establishment of project controlling is required. Nevertheless, there are astrological consultancies which e. g. operate as TV broadcasters or classic consultancies and given their size they require project controlling. In order to be able to represent also these consulting services in the astrological consulting system, the author shall include the key factor "project controlling intensity" as a system element within the astrological consulting system.

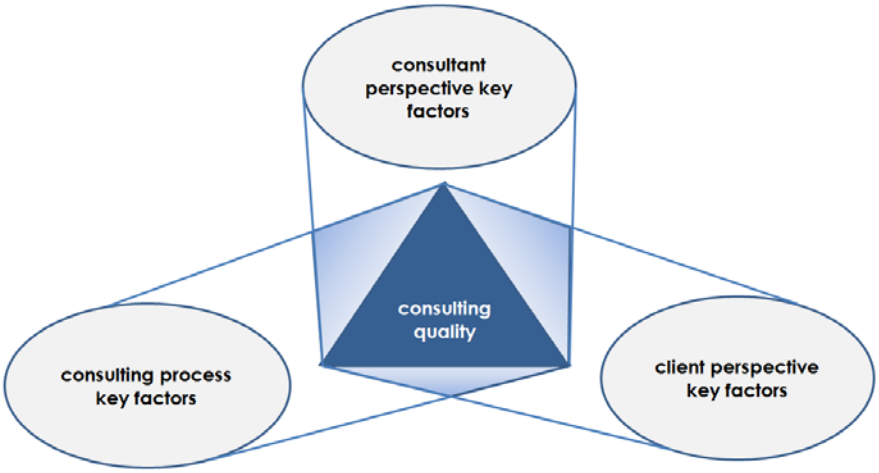
Figure 38: General key factors from the consulting process perspective (source: own depiction).



5.2.2 Concluding Representation of the Astrological Business Consulting System

This work is based upon the system-theoretical thought that the key factors identified over time are subject to dynamic changes and hence cannot represent static, constant values. The states of the key factors from the perspectives of the consultant, client and consulting object describe a specific and individual consulting situation at a certain point in time. The interaction of all system components described may be represented in a concept model concerning the quality of management consulting services (Figure 39).

Figure 39: Conceptual model for the quality of astrological consulting services (source: own depiction).



5.3 Astrological Consultant Model

5.3.1 Reducing Complexity in the Astrological Business Consulting System

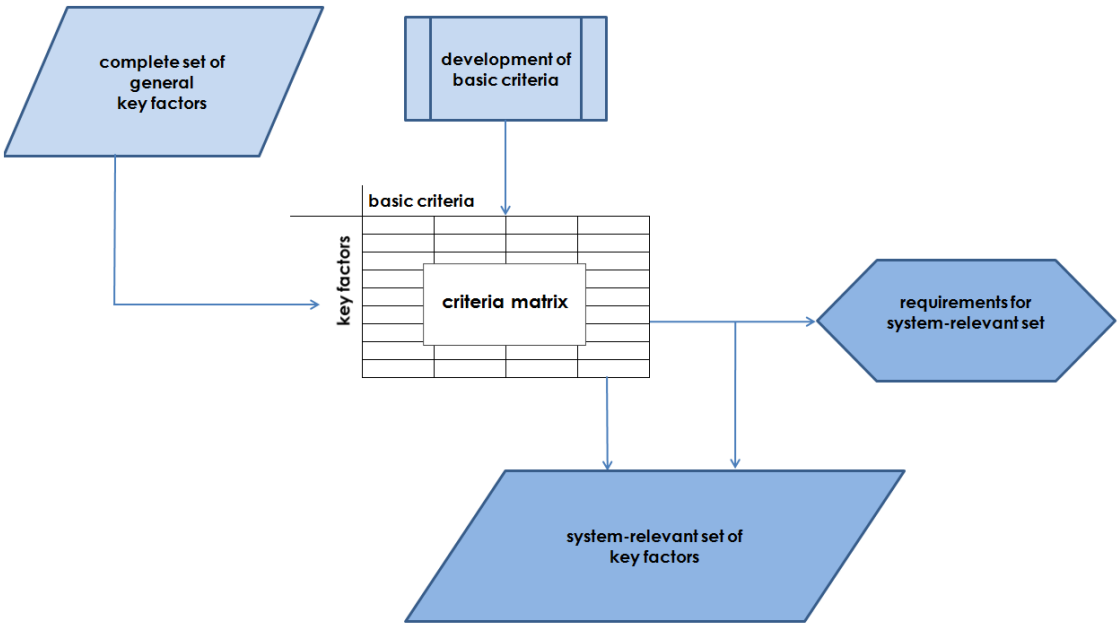
5.3.1.1 Systematic Reduction of General Key Factors

It is the aim of this third procedural step (cf. 3.8.1) to reduce the complexity of the astrological consulting model. This will be achieved through a systematic selection of relevant system elements as identified in Section 5.2.1, which represent system behaviour in the same way as the total of key factors identified so far in the model. Without such a complexity reduction, a useful representation of the multiple interactions among the system elements would not be possible. An unsystematic arbitrary reduction could lead to a system model causing biased appreciation, emphasising certain system aspects and not allowing, in the further course of examination, an abstraction of the expected realistic behaviour of the astrological consulting system. Since the author is seeking to explain the quality of consulting performances and given that the elements of consulting quality are indispensable for developing the astrological business consulting system model, the components obtained through the operationalisation of the consulting quality are momentarily excluded from the reduction. However, the elements of consulting quality will be subject to selecting a suitable, more detailed level, which will likewise result in a reduction of the elements to be considered.

In the following, the author shall systematically select a system-relevant “set” of key factors from all general key factors identified so far. For this purpose the so-called criteria matrix by Vester (2003) is to be applied, which was also used to reduce the general management consulting system key factors.

To clarify this further, the procedure employed is represented graphically below:

Figure 40: Systematic determination of a system-relevant set of key factors (source: own depiction).



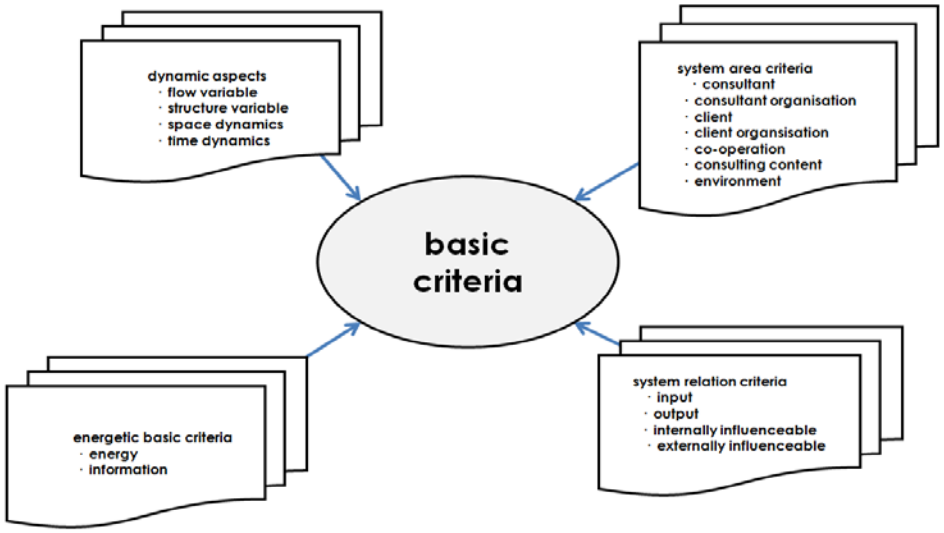
- **Basic Criteria to Describe Properties of Key Factors**

This chapter aims to develop a holistic astrological consulting model. In this respect, an essential basic property shall be that the key factors used (selected) are components of all relevant areas of the astrological consulting system model. Since also astrological business consulting may be seen as a system, to determine its system areas the same basic criteria shall apply as derived in Section 4.3 (management consultant system).

A holistic view and realistic system modelling may be ensured by using different perspectives to examine the system. To prepare the selection of key factors relevant for system modelling, a total of seven system area criteria, two physical criteria, four aspects of system dynamics and four types of system relations will be derived. In analogy to the procedure employed in Section 4.3.1.1.1 thus 17 criteria emerge, as represented in Figure 41.

The following overview represents the basic criteria for the definition of relevant system areas and aspects.

Figure 41: Basic criteria for the selection of the astrological business consulting key factors (source: own depiction).



In the following section the author will now be able to describe the properties of all key factors through the basic criteria by means of a criteria matrix.

- **Classification of System Elements by Means of the Basic Criteria**

Each of the 74 general key factors identified can now be examined with a view to determining which of the 17 basic criteria are fulfilled. The result of that analysis constitutes a criteria matrix containing 74 x 17 fields as represented in Annex 4. Theoretically, each key factor may comply with 0 to17 basic criteria. The key factors may comply fully, partially or not at all with these criteria. In the criteria matrix, full criterion compliance will be expressed using “1”, partial compliance using “0.5” and non-compliance using “0”.

The criteria matrix allows for a systematic reduction of general key factors. However, in the following step the author shall describe the defined requirements which relevant key factors must fulfil.

- **Determination of Requirements for System-Relevant Key Factors**

As already discussed under Section 4.3.1, the system relevance analysis seeks to systematically reduce the key factors to a representative “set” of key factors. This set will then serve to develop a complexity-reduced model of interactions. In this, the set of key factor shall fulfil certain requirements to ensure that the original full set of factors is definitely represented. The astrological business consulting system to be developed shall exhibit behaviour as similar as possible to that which would be expected when considering all key factors within the consulting system. From this global requirement, partial requirements for the previously defined criteria areas may be directly deduced. These should be distributed as evenly as possible and still contained in the set of key factors to be selected.

Table 19 explicitly describes the six requirements which the reduced set of key factors should fulfil. They are the same requirements as employed in deriving a representative set of key factors for the management consulting system.

Table 19: Requirements for the selection of system-relevant factors (source: own depiction).

Nr.	Requirements to the Reduced Set of Key Factors
A 1	Even coverage of all system areas; sufficient consideration of environmental impacts (environment)
A 2	Even consideration of energetic basic categories (energy, information)
A 3	Consideration of dynamic categories: flow variable and structure variable
A 4	Different dynamics in temporal development expected
A 5	Different dynamics in interactions expected
A 6	Relations system/environment and environmental impacts on the system should be considered sufficiently

Now that all key factors have been described according to the 17 criteria in a matrix and the requirements derived to a reduced set, the reduction as such may be carried out.

- **Derivation of System-Relevant Key Factors**

According to Vester (2003, p.224) a system model ideally has between 20 and 40 elements.[28] Since the key factors to be selected represent only a part of the elements of the astrological consulting model, a reduction of the 74 key factors identified to between 25 and 30 factors seems convenient. Following the indications by Vester (2003), this number ensures that a sufficient capacity of 15 to 20 elements for the consulting quality indicators remains.

For the selection process, the author shall use the criteria matrix. After a test selection of a set of key factors by means of columns sums and their mutual comparison, one may verify the indicators characterising the set properties. In case the requirements are not fulfilled, some factors may be removed from the set and/or new ones added, upon which the indicator and/or the fulfilment of requirements may be verified again. This process should then be repeated until a set of factors satisfying the requirements has been found. For the scope of this work, the reduction process was realised with an Excel spreadsheet.

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[28] The value was not chosen arbitrarily but results from a basic properties of a system to be covered by the system elements. For more in-depth information regarding the ideal minimum and maximum number of the set of model elements, the author refers to Vester (2003, p.224).

A total of 32 key factors was selected, all properties of which meet the requirements defined.

Prior to examining these factors as to the fulfilment of requirements, the author shall briefly present them in Table 20.

Table 20: The system-relevant key factors of the astrological business consulting system (source: own depiction).

Code	System relevant elements of the Astrological Consulting System
KF 1	Consultant's possibility of influencing the problem-solving
KF 2	Consultant's mode of conducting the consultation
KF 3	Person-related consultant competence
KF 4	Consultant's personality structure
KF 5	Consultant's experience in consulting
KF 6	Consultant's workshare
KF 7	Coinciding focus of perception of the consulting objective by both consultant and client
KF 8	Cooperation-related consultant competence
KF 9	Consultant organisation's willingness to co-operate
KF 10	Impact of environmental conditions on consultant organisation
KF 11	Client's willingness to learn and co-operate
KF 12	Client's consulting capacity
KF 13	Client's willingness to trust
KF 14	Client's workshare in consultation
KF 15	Client's capacity to provide information
KF 16	Size of client organisation
KF 17	Client enterprise potentials
KF 18	Impact of environmental conditions on client organisation
KF 19	Client organisation's enterprise culture and strategy
KF 20	Co-operation intensity
KF 21	Consulting task complexity
KF 22	Repetition frequency of consulting issue (of consulting problem)
KF 23	Structuring degree of consulting problem
KF 24	Use of standardised consulting methods
KF 25	Use of standardised consulting tools
KF 26	Use of electronic media and software
KF 27	Project controlling intensity
KF 28	Consultant's consulting potential quality
KF 29	Client's consulting potential quality
KF 30	Consultant's consulting process quality
KF 31	Client's consulting process quality
KF 32	Consulting result quality

After the number of key factors has been systematically reduced, in the following section the author may now add indicators from the already realised operationalisation of the consulting quality (Section 5.1).

5.3.1.2 Selection of the Appropriate Level of Indicators

In addition to the relevant key factors, the author must finally include suitable indicators in the model in order to enable the measurement of consulting quality. Therefore, consulting quality shall be added to the model as a collective element for the indicators and 27 relevant key factors of the astrological business consulting system. As a result, we obtain there is a total of 32 system elements (KF1-KF32), thereby observing the ideal number of 20 to 40 system elements stipulated by Vester (2003).

Table 21: Selected consulting quality elements of the astrological business consulting system (own source).

Code	Description of astrological consulting system element
KF 28	Consultant's consulting potential quality
KF 29	Client's consulting potential quality
KF 30	Consultant's consulting process quality
KF 31	Client's consulting process quality
KF 32	Consulting result quality

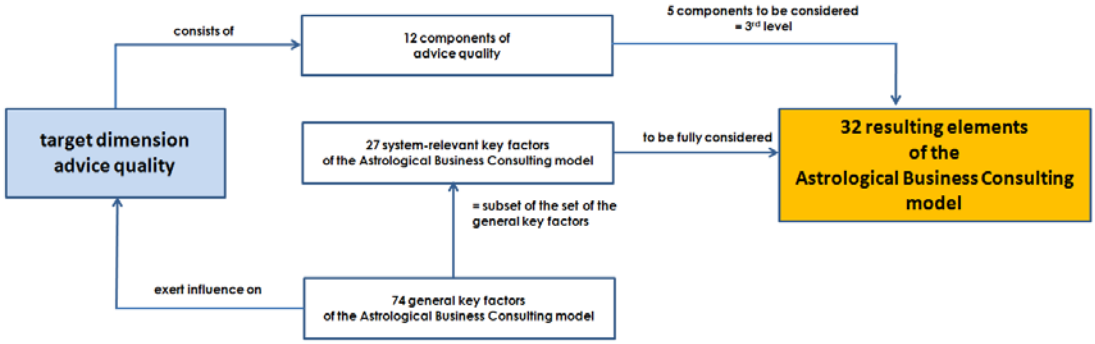
The author has thus completed the selection of elements for the astrological business consulting model. The following shall briefly summarise the selection process.

5.3.1.3 Concluding Representation of the Process of Selection

Figure 42 represents the derivation and systematic selection process for the system elements of the astrological consulting system. The 32 elements resulting from the selection process were derived from the consulting quality components and the relevant key factors exerting an influence upon these elements.

The 27 system-relevant key factors determined through the application of the 17 criteria represent a genuine subset of the 74 general key factors and are included without modifications in the astrological consulting system model, while the consulting quality components are considered only at the third aggregation level (5 sub-elements).

Figure 42: Summarising reproduction of the selection process of system-relevant key factors of the astrological business consulting system (source: own depiction).



Upon determining the 32 system-relevant elements, the author may in the following now carry out an analysis of the mutual interactions among the astrological business consulting system elements.

5.3.2 Identification of the Astrological Business Consulting System Structure

5.3.2.1 Coding the System-Relevant Key Factors

The determination of the mutual influence intensities of the system-relevant key factorsand consulting quality elementsserves the establishment of roles occupied by these key factors in the global astrological consulting system and/or the astrological consultant subsystem. Since a key factor's role cannot be established by itself alone but only from the entirety of its interactions with all other system elements and further their interactions among each other (Vester, 2003, p.226), the following step consists of estimating the influences of each system-relevant key factor within the astrological consulting system upon all the other key factors within that system. Against this background, the author shall first examine the mutual influence intensities within the astrological business consulting system and only then make a statement concerning which roles are occupied by which key factor within the astrological consultant subsystem. If in determining the mutual influence intensities the author focused exclusively on the astrological business consultant subsystem, he would run the risk of not sufficiently considering the interrelations among the subsystems and possibly obtain inacceptable results regarding the establishment of roles.

Hence it is the aim of this analysis to be able to make statements as to which astrological consulting system key factors exert stabilising or destabilising effects upon the system when it experiences changes. With this information, the author may make a qualitative statement regarding the structure of the key factors within the system, thereby becoming able to identify those key factors in the astrological consultant subsystem which may be considered as independent or largely independent of the behaviour of other key factors. The independent key factors may be characterised as astrological consultant subsystem determinants.

The examination of interactions is realised by means of a so-called influence matrix already used to develop the management consulting system and allows for a holistic consideration of all mutual influences among the system elements.

The basis for the influence matrix to be developed are the statements as made in Section 4.3.2 and the influence matrix produced there (management consulting system). The influence matrix (adjacency matrix) of the astrological consulting system appears in Annex 5.

The intensity properties of all elements may now be classified in the same way as already realised in Section 4.3.2:

- **Active:** Elements having a strong influence upon others but being weakly influenced by others.
- **Inert:** Elements having a weak influence upon others and being weakly influenced by others.
- **Critical:** Elements having a strong influence upon others and being strongly influenced by others.
- **Passive:** Elements having a weak influence upon others but being strongly influenced by others.

By means of the above typology, the author may now determine the independent astrological business consulting system key factors. In finding the independent system-relevant key factors, according to the above typology, the areas "active" and "inert" are decisive: an active system element receives little influence from other system elements and may hence be considered largely independent of the behaviour of the other system elements. An inert system element has only weak influence upon other system and is only weakly influenced by the behaviour of the other system elements. Accordingly, the system elements ranging both in the inert and active areas may be denominated as independent or largely independent.

5.3.2.2 Role Assignment of System-Relevant Key Factors

The scatter diagram is an adequate graphic representation of quantitative data. In analogy to the procedure under Section 4.3.2, also now the author shall carry out role assignments of the astrological consulting system key factors by means of a scatter diagram.

For this purpose, each pair of data (xi; yi) is transferred to a scatter diagram. The transfer of the rating results is made in such a way that the ratings of each influence factor are plotted through the active sum (y-axis) and passive sum (x-axis). Scaling on the x and y-axes always starts at 0. The final value on the x-axis is the highest passive value resulting, while the final value on the y-axis is the highest active value (Vester, 2003, p.236).

The diagram is divided horizontally and vertically; 4 fields appear which are important for the subsequent proceedings. They represent the active, inert, critical and passive fields (Vester, 2003, p.236). For the further investigations, the author will have to pay attention to the key factors in the active and inert fields, since it is there that we find the influence (key) factors considered independent or largely independent of the behaviour of other key factors. This means that the independence represents a key factor's degree of reaction susceptibility in respect of the appearing influence intensities fw(eij), caused by other key factors. They indicate how strongly a key factor can be modified within the system.

Vester (2003, p.236) divides the diagram horizontally and vertically in halves of equal sizes. Accordingly, the result is the following role assignation in the astrological business consulting system (see Annex 6).

- **Elements with active influence behaviour**

The system elements and/or key factors in the active system area exhibit active influence behaviour and may thus serve as effective levers to change a system (Vester, 2003, p.235). Since these key factors have a strong influence upon other key factors within the system but they themselves are not subject to much influence, they are to be considered as independent of the behaviour of other key factors, i. e. they assume an independent position within the system.

The key factors with the highest active values are e. g. consulting task complexity (KF21 = AS:44; PS:10), the consultant's consulting experience (KF5 = AS:39; PS:16), the cooperation-related consultant competence (KF8 = AS:36; PS:22), repetition frequency of the consulting issue (KF22 = AS:32; PS:2), person-related consultant competence (KF3 = AS:31; PS:18) and client enterprise potentials (KF17 = AS:24; PS:7). This means that consulting projects exhibit a very high activity in structural factors and individual consultant properties.

- **Elements with inert influence behaviour**

As the elements in this area exhibit a high inertia, the author may assume high system sensitivity with large self-regulation mechanisms. These factors are not suitable for active system steering, but only for self-regulation. However, since they are not or only weakly influenced by other system elements, they assume an independent position within the system, just like the system elements in the active area.

System elements in the inert area are: the consultant's personality structure (KF4 = AS:3; PS:2), the consulting organisation's willingness to cooperate (KF9 = AS:21; PS:12), influence of environmental conditions on the consultant organisation (KF10 = AS:6; PS:0), size of client organisation (K16 = AS:16; PS:2), the influence of environmental conditions on the client enterprise (KF18 = AS:19; PS:0), the client organisation's enterprise culture and strategy (KF19 = AS:21; PS:4), the consultant's consulting potential quality (KF28 = AS:17; PS:10), the client's consulting potential quality (KF29 = AS:15; PS:11), consulting process quality on the consultant side (KF30 = AS:16; PS:14) and consulting process quality on the client side (KF31 = AS:14; PS:13).

- **Elements with critical influence behaviour**

In the critical model area there are accelerators and catalysts which may help the system jump start. There is the danger of an uncontrolled system build-up and knock-over when these elements change, thus they require very cautious treatment. Hence these elements are considered as behaviour-dependent on other system elements (Vester, 2003, p.235).

The following system elements show critical behaviour: the consultant's degree of influence upon problem-solving (KF1 = AS:30; PS:40), the consultant's workshare (KF6 = AS:28; PS:38), which has one of the largest influences upon the global system and hence sustainably determines the consulting quality target dimension; the client's willingness to learn and cooperate (KF11 = AS:30; PS:41), the client's consulting capacity (KF12 = AS:26; PS:34), the client's workshare (KF14 = AS:28; PS:38), the client's capacity of providing information (KF15 = AS:24; PS:33), co-operation intensity (KF20 = AS:33; PS:45), the degree of structuring of the consulting problem (KF23 = AS:34; PS:24), the use of standardised consulting methods (KF24 = AS:26; PS:37) and the use of electronic media and software (KF26 = AS:26; PS:38).

- **Elements with passive influence behaviour**

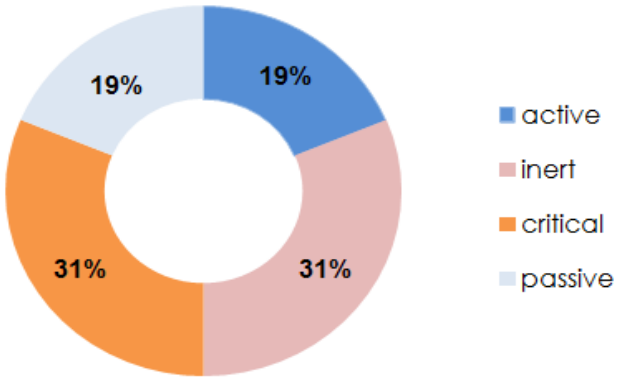
Steering intervention in the passive area will merely cause corrections of a rather cosmetic nature. Such action amounts to symptomatic treatments. The factors in this area may thus primarily be used as indicators and should thus be classified as system factors behaviour-dependent on other elements (Vester, 2003, p.235).

As expected, in this segment the author finds the following elements: the mediation character of the consultant behaviour (KF2 = AS:21; PS:38), the homogeneous perception of the consulting target by both consultant and client (KF7 = AS:17; PS:38), the client's willingness to trust the consultant (KF13 = AS:18; PS:37), the use of standardised consulting instruments (KF25 = AS:20; PS:37), the intensity of project controlling (KF27 = AS:16; PS:27) and consulting result quality (KF32 = AS:1; PS:45), which at the beginning of this work could all be identified as essential symptoms of low consulting satisfaction.

5.3.2.3 Concluding Representation of the Astrological Business Consulting System Structure

Figure 43 provides an overview of the influence behaviour exhibited by the key factors within the astrological business consulting system. All in all one may appreciate an astonishingly balanced distribution. About one fifth of factors show active influence behaviour, a fact which indicates certain system changeability and influenceability. The same number of factors has properties which make them unsuitable for stabilising system steering. The critical area is determined to almost one third by factors representing accelerators and catalysts which may be suitable for jump starting the system. This however also inherits the danger of an uncontrolled system build-up and knock-over. Again an identical number of factors exhibit major or minor inertia, an indicator for high system sensitivity with large self-regulation mechanisms. These factors are not suitable for active system steering but only self-regulation.

Figure 43: Distribution of role behaviours of system-relevant key factors and elements of consulting quality (source: own depiction).



5.3.3 Constitution of the Astrological Business Consultant Subsystem

In the preceding Section 5.3.2, the author determined the roles of system-relevant elements within the astrological business consulting system. The role assignment also provides the system structure for the astrological business consulting system. The following Table 22 reproduces the result of this analysis in an overview.

The active and inert system elements constitute determinants of the astrological business consulting system, which are independent or largely independent of the behaviour of other system elements (key factors). With these independent key factors, the astrological business consulting system can be sufficiently described.

Table 22: Role structure within the astrological business consulting system (source: own depiction).

The Astrological Business Consulting System		
Code	**Name of the key factor**	**Position in the diagram (quadrant)**
KF 1	Consultant's possibility of influencing the problem-solving	Critical field (quadrant III)
KF 2	Consultant's mode of conducting the consultation	Passive field (quadrant IV)
KF 3	Person-related consultant competence	Active field (quadrant II)
KF 4	Consultant's personality structure	Inactive field (quadrant I)
KF 5	Consultant's experience in consulting	Active field (quadrant II)
KF 6	Consultant's workshare	Critical field (quadrant III)
KF 7	Coinciding focus of perception of the consulting objective by both consultant and client	Passive field (quadrant IV)
KF 8	Cooperation-related consultant competence	Active field (quadrant II)
KF 9	Consultant organisation's willingness to co-operate	Inactive field (quadrant I)
KF 10	Impact of environmental conditions on consultant organisation	Inactive field (quadrant I)
KF 11	Client's willingness to learn and co-operate	Critical field (quadrant III)
KF 12	Client's consulting capacity	Critical field (quadrant III)
KF 13	Client's willingness to trust	Passive field (quadrant IV)
KF 14	Client's workshare in consultation	Critical field (quadrant III)
KF 15	Client's capacity to provide information	Critical field (quadrant III)
KF 16	Size of client organisation	Inactive field (quadrant I)
KF 17	Client enterprise potentials	Active field (quadrant II)
KF 18	Impact of environmental conditions on client organisation	Inactive field (quadrant I)
KF 19	Client organisation's enterprise culture and strategy	Inactive field (quadrant I)
KF 20	Co-operation intensity	Critical field (quadrant III)
KF 21	Consulting task complexity	Active field (quadrant II)
KF 22	Repetition frequency of consulting issue (of consulting problem)	Active field (quadrant II)
KF 23	Structuring degree of consulting problem	Critical field (quadrant III)
KF 24	Use of standardised consulting methods	Critical field (quadrant III)
KF 25	Use of standardised consulting tools	Passive field (quadrant IV)
KF 26	Use of electronic media and software	Critical field (quadrant III)
KF 27	Project controlling intensity	Passive field (quadrant IV)
KF 28	Consultant's consulting potential quality	Inactive field (quadrant I)
KF 29	Client's consulting potential quality	Inactive field (quadrant I)
KF 30	Consultant's consulting process quality	Inactive field (quadrant I)
KF 31	Client's consulting process quality	Inactive field (quadrant I)
KF 32	Consulting result quality	Passive field (quadrant IV)

Table 22 shows which of the system-relevantkey factors are located in the active and inert areas of the astrological business consulting system.

In examining the astrological consultant subsystem, determined by key factors KF1 to KF10 and KF20, Table 22 also shows which of these key factors are to be considered as (largely) independent.

Key factors KF3, KF4, KF5, KF8, KF9 and KF10 are in the active and inert system areas and may thus be identified as independent key factors of the astrological business consultant subsystem.

With this identification of the independent, system-relevant key factors, the astrological consultant subsystem has been sufficiently determined. It shall now be compared with the management consultant subsystem.

The following overview (Table 23) exhibits the influence structure of system-relevant key factors within the astrological business consulting system.

Table 23: The influence structure of the system-relevant key factors in the astrological business consulting subsystem (source: own depiction).

The Astrological Business Consulting System			
Code	**Key factor**	**Position in diagram (quadrant)**	**Key factor's role in the astrological consulting system**
KF 1	Consultant's possibility of influencing the problem-solving	Critical field (quadrant III)	dependent
KF 2	Consultant's mode of conducting the consultation	Passive field (quadrant IV)	dependent
KF 3	**Person-related consultant competence**	**Active field (quadrant II)**	**independent**
KF 4	**Consultant's personality structure**	**Inactive field (quadrant I)**	**independent**
KF 5	**Consultant's experience in consulting**	**Active field (quadrant II)**	**independent**
KF 6	Consultant's workshare	Critical field (quadrant III)	dependent
KF 7	Coinciding focus of perception of the consulting objective by both consultant and client	Passive field (quadrant IV)	dependent
KF 8	**Cooperation-related consultant competence**	**Active field (quadrant II)**	**independent**
KF 9	**Consultant organisation's willingness to co-operate**	**Inactive field (quadrant I)**	**independent**
KF 10	**Impact of environmental conditions on consultant organisation**	**Inactive field (quadrant I)**	**independent**
KF 11	Client's willingness to learn and co-operate	Critical field (quadrant III)	dependent
KF 12	Client's consulting capacity	Critical field (quadrant III)	dependent
KF 13	Client's willingness to trust	Passive field (quadrant IV)	dependent
KF 14	Client's workshare in consultation	Critical field (quadrant III)	dependent
KF 15	Client's capacity to provide information	Critical field (quadrant III)	dependent
KF 16	**Size of client organisation**	**Inactive field (quadrant I)**	**independent**
KF 17	**Client enterprise potentials**	**Active field (quadrant II)**	**independent**
KF 18	**Impact of environmental conditions on client organisation**	**Inactive field (quadrant I)**	**independent**
KF 19	**Client organisation's enterprise culture and strategy**	**Inactive field (quadrant I)**	**independent**
KF 20	Co-operation intensity	Critical field (quadrant III)	dependent
KF 21	**Consulting task complexity**	**Active field (quadrant II)**	**independent**
KF 22	**Repetition frequency of consulting issue (of consulting problem)**	**Active field (quadrant II)**	**independent**
KF 23	Structuring degree of consulting problem	Critical field (quadrant III)	dependent
KF 24	Use of standardised consulting methods	Critical field (quadrant III)	dependent
KF 25	Use of standardised consulting tools	Passive field (quadrant IV)	dependent
KF 26	Use of electronic media and software	Critical field (quadrant III)	dependent
KF 27	Project controlling intensity	Passive field (quadrant IV)	dependent
KF 28	**Consultant's consulting potential quality**	**Inactive field (quadrant I)**	**independent**
KF 29	**Client's consulting potential quality**	**Inactive field (quadrant I)**	**independent**
KF 30	**Consultant's consulting process quality**	**Inactive field (quadrant I)**	**independent**
KF 31	**Client's consulting process quality**	**Inactive field (quadrant I)**	**independent**
KF 32	Consulting result quality	Passive field (quadrant IV)	dependent

System-relevant key factors of the Astrological Business Consultant subsystem

System-relevant key factors of the Astrological Business Consultant subsystem

5.4 Summary, Provisional Findings and Conclusion

In this chapter, the author conceived and developed the astrological business consulting system. the basis for this procedure was the same theorectical framework as applied in Chapter 4, where the management consulting system was developed. The result of the conceptual development of the astrological business consulting system can be found in Table 23.

The comparison of the two systems of management consulting and astrological business consulting as theoretically developed upon secondary data shows that both consulting systems are described by means of the same independent key factors. Therefore at this point both consulting systems are identical from a systems-oriented perspective. Astrological consulting consequently result in an applicable consultancy concept in the area of business consulting.

In the following Chapter 6 the role structure of each of the two system models shall be statistically verified.

Chapter 6: Statistical Verification of the Two Consulting Models

6.1 Introduction

Validation provides information concerning the validity of an investigation. It allows for statements as to whether a measuring instrument actually measures what it is meant for. The validity of a measuring instrument used can be assessed only by means of comparison with the results obtained from other instruments. The range of independence in the system as indicated by Vester (2003), which initially is also the basis for this present work, was determined more or less arbitrarily. In order to scientifically justify this determination, the author shall statistically verify the respective role structures of the two models and hence also their respective ranges of independence.

In the preceding Chapters 4 and 5, the author developed the systems of management consulting and astrological business consulting, based upon secondary data and information as resulting from empirical reports (literature), contributions from the literature, background talks and the author's knowledge from his own experience. In consequence, the system models are based on secondary data.

The identification of key factors and the subsequent determination of independent key factors in both systems were carried out against the background of systems thinking. In this, the author referred to Vester's (1980, 2003) and Gomez&Probst's (1999, 2004) system-oriented approaches, which propose the derivation of the independence of a system element by means of its effect behaviour, its role, within the system. For this purpose, Vester (2003) and Gomez&Probst (2004) realise a role typology of system elements. In order to visualise this role typology, the diagram is horizontally and vertically divided into equal halves or quadrants and subsequently the influence intensities of each element within the system are plotted in a scatter diagram. The position of the system element in the respective diagram quadrant will then provide information as to whether the system element is dependent on or independent of the behaviour of the other system elements and may in consequence be characterised as a dependent or independent system element.

It is the author's opinion that Vester (1980, 2003) and in the further course of time also Gomez&Probst (1999, 2004) determined the quadrants more or less arbitrarily when dividing the diagram areas in two exact halves without justifying this scientifically. In order to verify the validity of the independent key factors in the model as used in this work - based upon the quadrant model by Vester (2003) and Gomez&Probst (2004) - the author shall in the following statistically verify the division of the scatter diagram into quadrants and hence the role structures of the respective systems.

6.2 Role Structure of the System-Relevant Key Factors of the System of Management Consulting based on Secondary Data

6.2.1 Explanations on the Statistical Methods Applied

When looking at the scatter diagrams of Vester (2003) and Gomez&Probst (2004), the question arises from what x-axis value on the term "independence" may be used. In other words: until what distance on the x-axis (passive influence matrix values) those key factors which are independent of other key factors might be found.

Frequently, dependencies in data sets are the reason why statistical standard methods lose validity. Since the analysis of the position of key factors within the quadrant models is considerably difficult given the effects of the spatial scatter diagram and because these difficulties can not or can only unsatisfactorily be overcome with classical methods, there is a requirement for other statistical approaches such as multivariate analyses.

Multivariate procedures (such as factor analyses, cluster analyses, discriminant analyses, principal component analyses, concordant analyses, multidimensional scaling) are less suitable for this kind of investigation. These procedures focus either on a reduction of dimensions or on clustering (bundling possibility). It might be helpful to envisage answers as plot points in a 3D space, being represented in 3 dimensions, such as the price, performance and comfort in buying a car. It could happen now that the answers determine the plotted points in such a way that they all lie on an inclined table plane in space. Then the basic vectors of the table (referring to width and height) might be taken as a new coordinate system and thus the originally three-dimensional problem is converted into a two-dimensional one. However, such reduction of plot points within a 3D space is not always possible. Further disadvantages are that it is not always established what the two basic vectors actually stand for (as they may be a mix of the previous dimensions). Also, this will not yield an answer as to whether the price was significantly more important for the client than comfort, i. e. such answers will not be of great help in the above question (determination of quadrants within the scatter diagram).

A cluster analysis examines whether plot clusters (accumulations) separated from one another may be recognised within the image, the projections of which also result in separated areas upon the diagram axes. But for the present question such a statement would not provide a suitable result either. If a projection upon the diagram axes were successful, this would result in a statement that for example key factors 11-19 have similar passive values, as well as key factors 2 to 8. Nonetheless, this result does not suit the question, since once again no answer has been obtained as to whether the plot accumulations are "significantly passive" or not, i. e. the limit between the quadrants on the passive axis does not discriminate between dependent and independent key factors in a statistically secured way.

In summary it may be stated that neither multivariate analyses nor conventional independence tests are suitable to solve the present problem. Rather this is one of the – statistically not rare – cases where an investigator may easily be trapped by using a "known" procedural pattern without having critically examined the problem in question. Actually, the answers to the question on the dependence or independence of the individual key factors already figure in the cells of the respective influence matrix (adjacency matrix). All that is left be done is to add these values to the statements in an appropriate manner.

An alternative, in the author's opinion, is to realise the diagram's horizontal and vertical division (quadrants) by means of mathematical statistics.

6.2.2 Process of Verification

Basically, Vester's (2003) and Gomez&Probst's (2004) quadrant model, which is frequently found in the literature, is a useful reference to solve the present problem. In the further course of this study, Vester's (2003) quadrant model shall be the reference for of the statistical validation process:

1. The following aspects can be adopted from it:

   a) Vester's (2003, p.236) representation scheme: Though "only" a presentation graphics, it allows a quick visulatisation of the position of an element within the system.

   b) Vester's (2003, p.236) statement that for determining the independence of a system element the only factor which counts is the "influence" on the system element by another system element i. e. with regard to the present work the column values (passive values) of the influence matrix.

   c) The utilisation of the sum values (or – in a different scaling – the mean value) of the influence matrix as the data basis to add the "partial charges" within a "total charge". The median and (even more) the mode are only "interested" in cells with "medium-size" values and as such further dilute the data basis. Therefore the sum or the arithmetic mean should be used.

2. The following aspects can be changed in it:

   a) The procedure, in such as way as to use the means instead of the sums (in that case with 2 decimals) of the influence matrix. This has the advantage that the results from the influence matrix lie within the original assessment range (0 to 3) and are directly comprehensible. However, this is the only advantage. If the requirement is to stay close to the reference, the sum values will do just as well.

b) The representation scheme for the quadrant model. The four-fielddiagram may be represented either "absolutely" (with the axes representing the entire assessment range (0 to 43 and 0 to 45) or "relatively" (limited axis ranges). Both ways have their raisons d'être. An absolute representation may be useful when seeking to assess and compare two different systems. In that case it may be supposed that the assessment levels 0-3 in one system are "deliberately" different from the assessment levels 0-2 in the other system. Besides, the different positions within the assessment range are useful information. In all other cases, especially when assessing a single system, the relative view makes sense since the assessment levels (2 or 3) leave much room for interpretation and only the position of key factors in the diagram is relevant.

Since the quadrant division within the scatter diagram and the codification contents (influence intensities) exert their influence all the way to the end of the analysis, even this fact alone forbids a relative view. This is why in the following the scatter diagram will be represented in an absolute manner.

3. The following aspects must be changed in it:

The extremely rough, almost arbitrary and completely unjustified determination (cf. e. g. Vester, 2003, p.236) of the range of independence (simply referred to as the "left half" of the diagram).

The scope of mathematical statistics covers systems "subject to random" in which the influence of fortuity in obtaining results cannot be excluded. The type of problems in mathematical statistics – in all their different variations - is always the same: An assessment has to be made whether the result or the differences in the results are possible in case of pure random or if there was "more to it".

Thus an expensive new production facility for a new product will only be considered if there is reasonable certainty that the better results in this new product are just not due to "pure random".

However, in most cases these answers cannot be obtained so absolutely, because "pure random" can never be completely excluded. So instead of not deciding at all anymore, it is much better to subject one's decisions to "probability" (p), the occurrence of pure random: If p is too small, no assumption is made ofthe occurrence of random alone, i. e. "something else" apart from it is assumed and hence consideration would be given to building the new production facility.

Nonetheless the question remains open when p, which measures the probability of pure random occurrence, becomes too small for "random alone" to be believed in anymore. It will be best to define this threshold in advance, in other words, subject to a case-to-case basis within the problem context: If the new production facility costs, say, 10.000 GBP, there will certainly be more willingness to realise the investment than if it costs 10m GBP. In the second case there will be the requirement of a far greater certainty of not being caught by a result arising from random, and hence a demand for a much smaller value for p (= pure random) for an investment in a new production facility.

The sensitivity threshold is the known "level of significance" (alpha), the probability of error, which is generally (conventionally) set at 0,05 (= 5%). Determining alpha = 5% would mean that the probability of error is at a maximum of 5% and that hence all better results in a production facility are due to "pure random". Depending on the case, however, alpha may at times be 10% (early decision with low risk) or also 1% (very late decision with high risk). Methodically speaking, the level of significance alpha is determined and a decision is made against pure random whenever the p value for a decision of random is below alpha.

With regard to the present case, the author may initially state that there is a system subject to random since in the determination of the influence behaviour (role) of a key factor within the system (influence matrix) both the very assessment levels (0 to 3) provide freedom of interpretation and the classification of the influence behavious of a key factor in one or another level is decided subjectively. In consequence, two persons may not necessarily assess the influence of one and the same key factor upon other key factors in an identical manner, even though they perceive them similarly; a fact which leads us now to find out what variances have to be tolerated and from what variances on the existence of fundamentally different assessment criteria may be supposed (= significance, over-fortuitousness; = systematic differences). As human lives are not at risk in this case as might occur, say, in pharmaceuticals, further assumption may be made of a standard alpha value =5% (and also mention the neighbouring results for alpha =10% and alpha =1%).

Against this background, the only question left open is how to obtain the p values.

If a certain passive sum arising with a sufficient probability p from the influence matrix may also be obtained by rolling a dice (tetrahedron dice, areas 0 to 3), then there is no need for assigning it significance regarding any "dependence" or "independence". Only if – in the case of independence – the passive sum becomes so small that it appears too seldom to be merely a random value, it may be considered "significantly independent".

What is needed then is information regarding which passive sums in this assessment method (integers from 0 to 3) under pure random appear how often (i. e. information regarding the probability distribution of the random variable "passive sum").

Frequently it is not very simple to find this distribution. Sometimes it is necessary first to run through many cases or to carry out a simulation ("Monte Carlo" procedure) to find out how the corresponding variable behaves.

Therefore it is easier to have the possibility of falling back on theoretical information. Not only does it make an investigation redundant, it also offers a distribution type known in statistics, for which this discipline has further information directly available. This is the case here:

According to the central limit theorem in statistics[29], the sum of random variables distributed in any though identical ways shows asymptotic NORMAL behaviour (which is of course true also for the mean).

So, no matter how "lopsided" or "crooked" the behaviour of the individual summands may be: if all summands behave in the same way and there are a sufficient number of summands, then for each summand one will always see the known Gaussian curve. Obviously this is used not only when, as here, a sum is explicitly sought but also when the variable actually sought is too inconvenient – the mean arising from n values is then normally distributed.

The theorem even indicates what the resulting normal distribution of the sum looks like: mean and variance just become simpler (the new standard variation being now square root (n)*s).

Before applying this important fact to the system models examined herein, the author shall first suggest how this proves to be correct when throwing a coin or dice.

Here the so-called Monte Carlo procedure is used: Have your PC throw a coin or dice 'a great number of times' and then see what individual and sum results appear with what frequency.

The following 4 graphics describe the coin throwing. Represented are the % parts from the mean results obtained. For the individual values in Figure 44, only 300 throws are made. It is known that the result will be an approximately uniform distribution. Subsequently the mean from each of two results obtained from 500 dice throws (Figure 45) is considered; after that from each of four values obtained from 1,000 throws each (Figure 46); and finally, in the fourth graphics (Figure 47) there appears the result from each of six, as obtained from 10,000 throws. There – with a mean of only 4 summands – the shape of the Gaussian curve can already be recognised.

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[29] The denomination "central limit theorem" originates from the work "Über den zentralen Grenzwertsatz der Wahrscheinlichkeitsrechnung und das Momentenproblem" (1920) by the Hungarian mathematician George Pólya (1887-1985).

Figure 44: Mean results regarding the throwing of coins with 300 throws (source: own depiction).

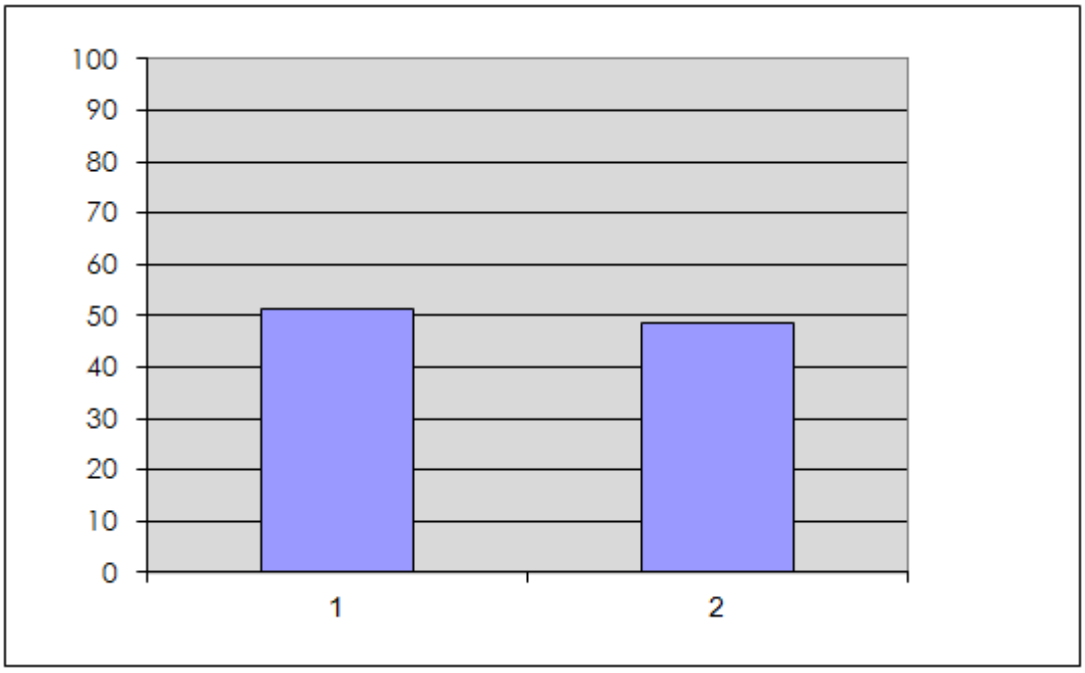


Figure 45: Mean results regarding the throwing of coins with 500 throws (source: own depiction).

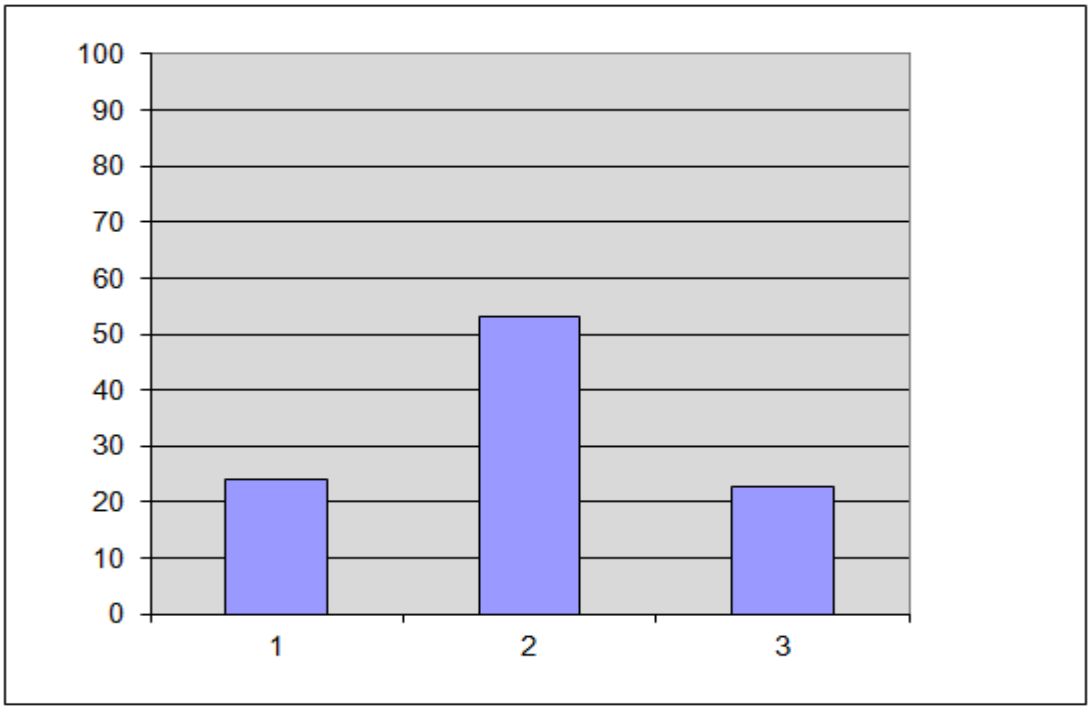


Figure 46: Mean results regarding the throwing of coins with 1,000 throws (source: own depiction).

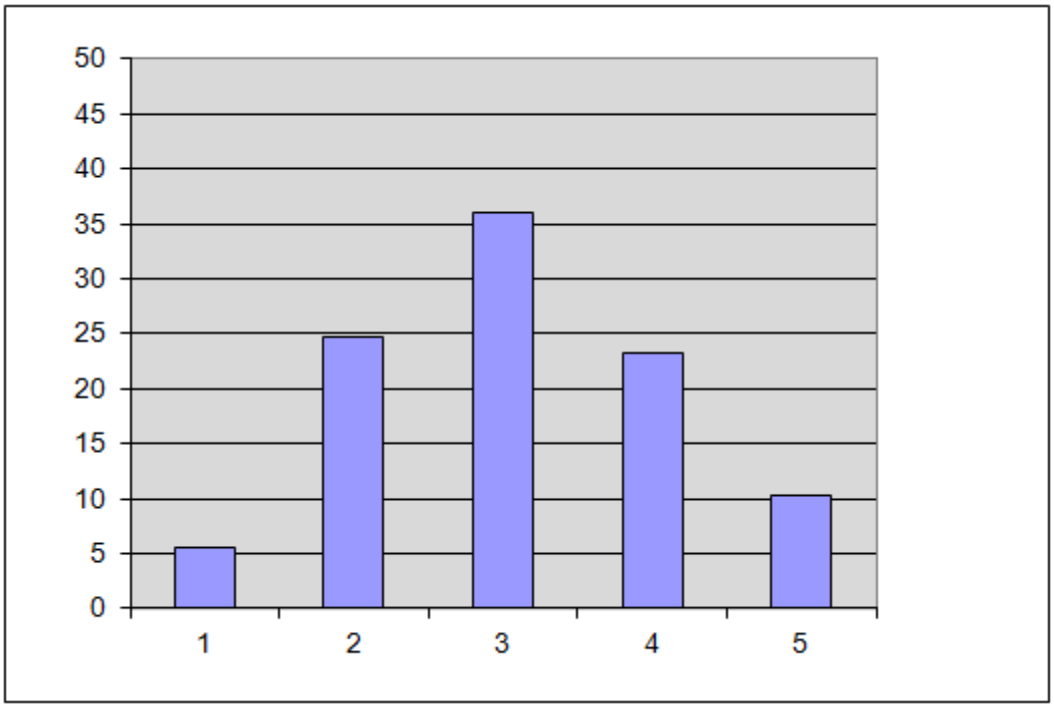
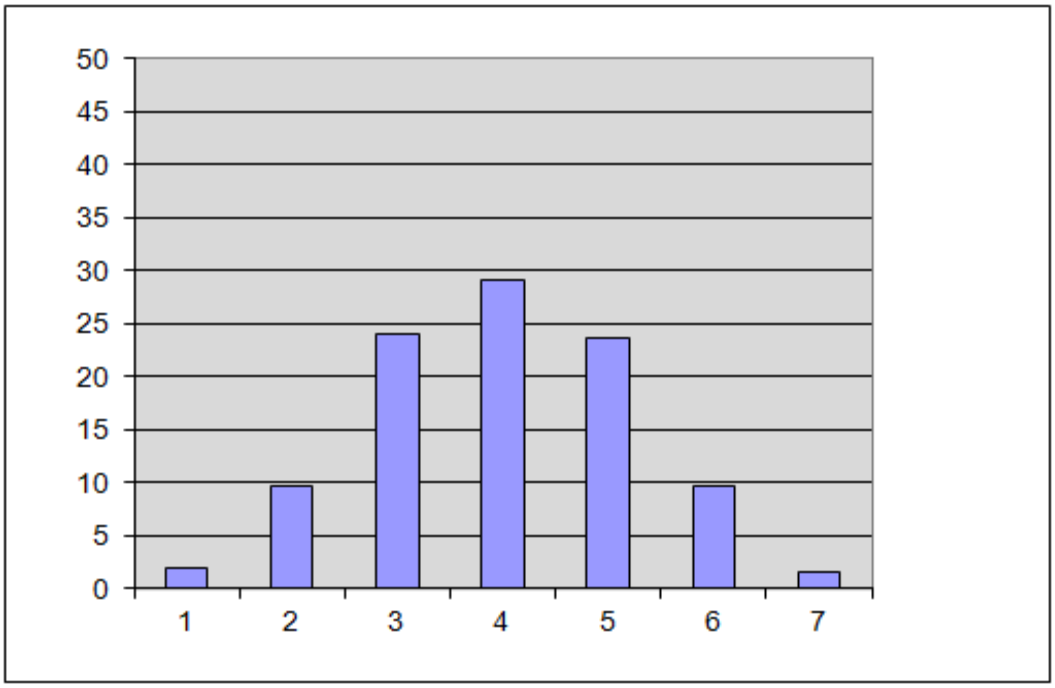


Figure 47: Mean results regarding the throwing of coins with 10,000 throws (source: own depiction).



The four further graphics represent the throwing of dice in a similar way. Now, the absolute frequencies (Y) of the sum results (X) are obtained with sums from 1, 3, 4 and 6 individual values. Also here a Gaussian curve quickly forms; it may be seen already with 4 summands.

Figure 48: Absolute frequencies (Y) for sum results (X) obtained with sums from 1–6 individual values (source: own depiction).

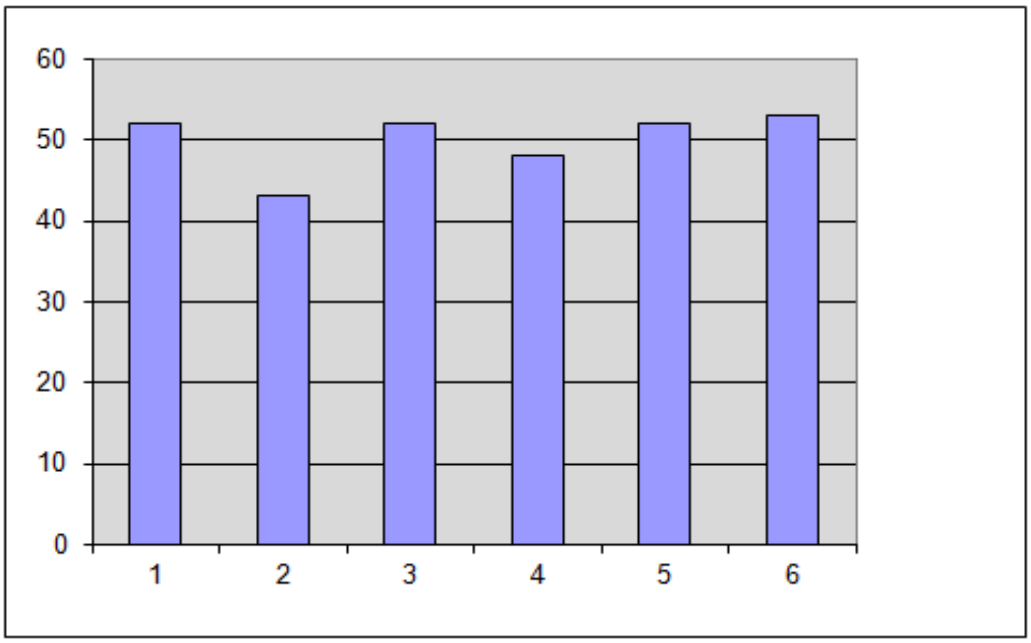


Figure 49: Absolute frequencies (Y) for sum results (X) obtained with sums from 1–16 individual values (source: own depiction).

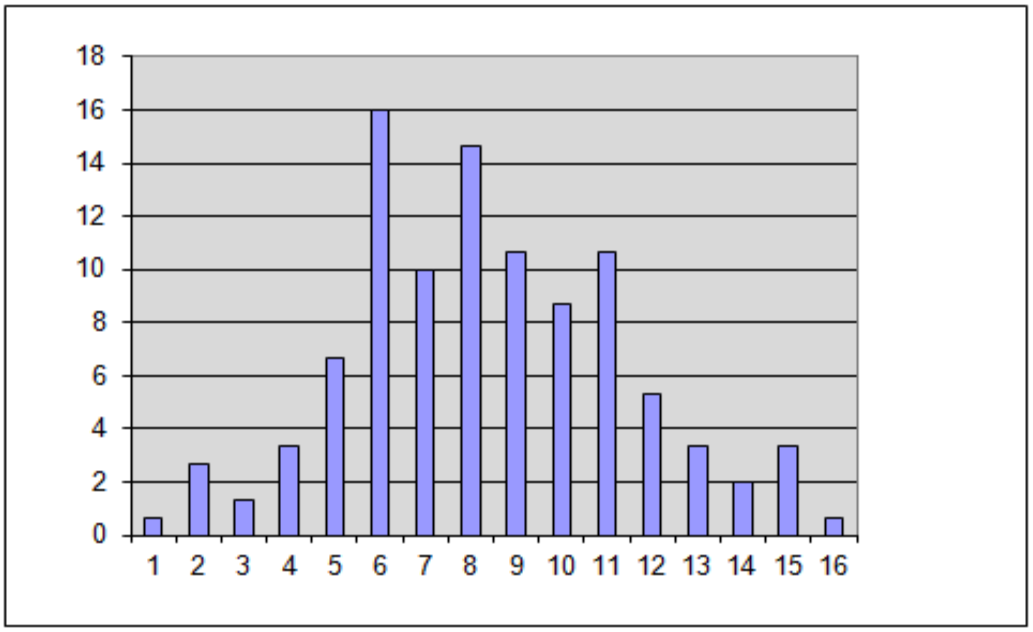


Figure 50: Absolute frequencies (Y) for sum results (X) obtained with sums from 1–21 individual values (source: own depiction).

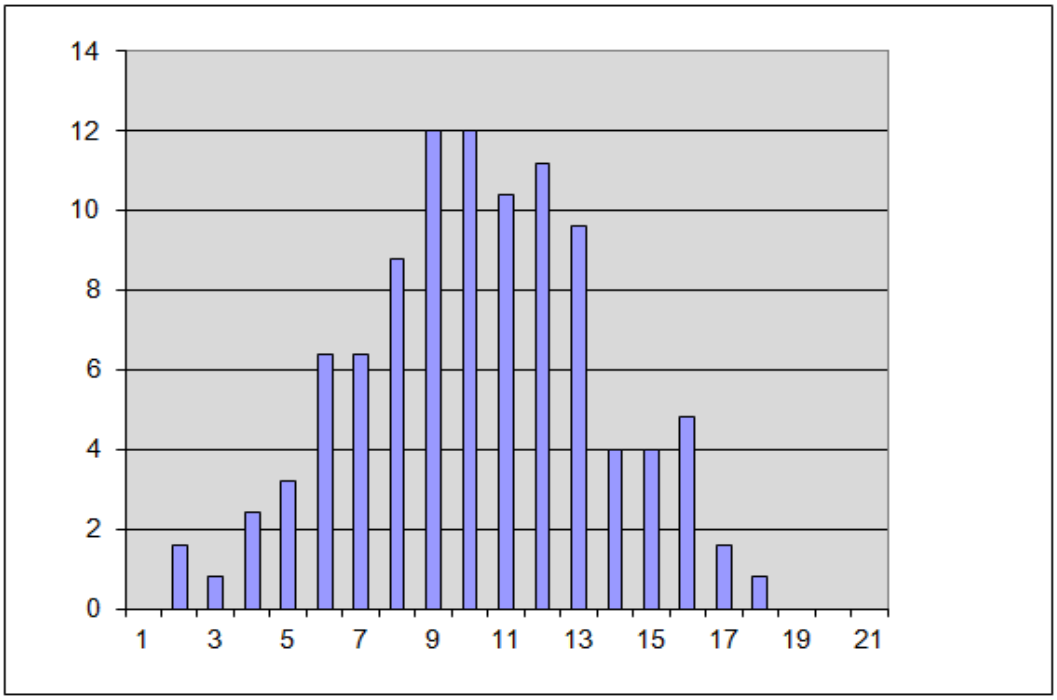
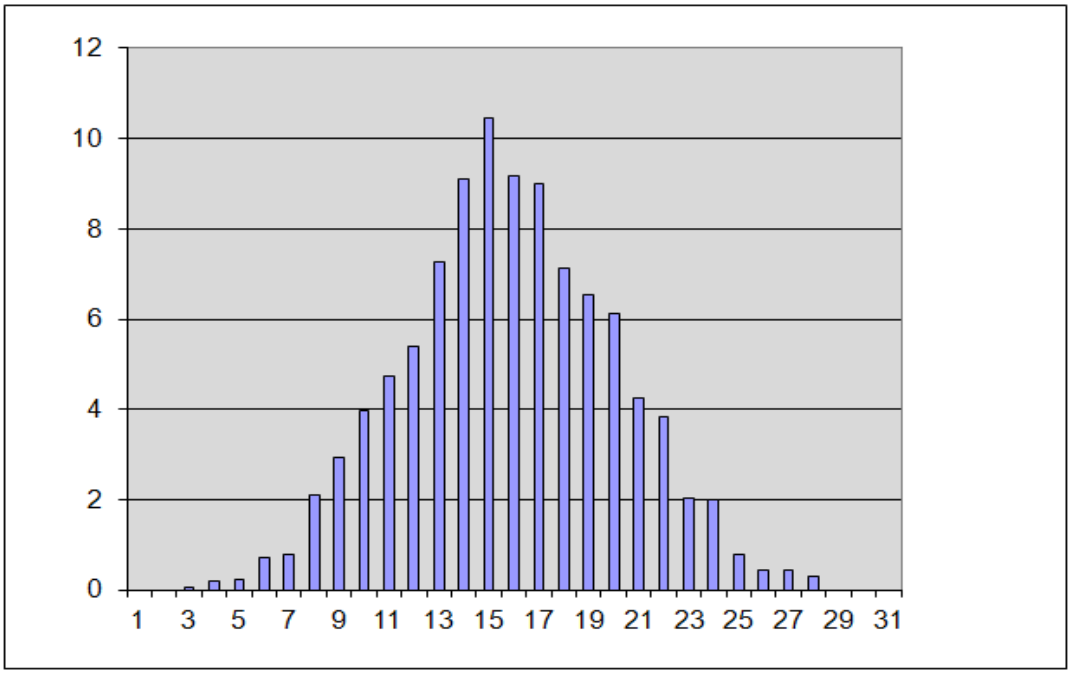


Figure 51: Absolute frequencies (Y) for sum results (X) obtained with sums from 1–31 individual values (source: own depiction).



There is general agreement in the literature regarding the fact that in the case of symmetric initial distributions a number of 12 summands is already sufficient for further statistical analyses. For n > 30 summands, the literature confirms that any initial distribution shows a sufficiently exact approximation to Gaussian distribution.

From the influence matrix (adjacency matrix) of the management consulting system, for example, 32 summands are obtained from the column sums (passive sum = influenceability of key factors), so that a sufficiently exact approximation to Gaussian distribution may be assumed.

Now it is still necessary to calculate the (arithmetic) mean and the standard variation in order then to be able to determine the range of infrequent small values.

The initial distribution is a uniform distribution, considered as absolute with regard to the 4 possible results (assessment levels 0-3). Their arithmetic mean (m), variance (Var) and standard variation (S) can easily be calculated from the series of the respective results considered:

- **Absolute:**

Arithmetic mean (m) = (0+1+2+3)/4 = 1.5
Variance (Var) = [(0-1.5)^2 + (1-1.5)^2 + (2-1.5)^2 + (3-1.5)^2] / 4 = 5 / 4 = 1.25
Standard variation (S) = square root (Var)

- **Relative**, for example, in cases where 0, 1 and 2 appear:

Arithmetic mean (m) = (0+1+2)/3 = 1
Variance (Var) = [(0-1)^2 + (1-1)^2 + (2-1)^2] / 3 = 2 / 3 = 0.67
Standard variation (S) = square root (Var)

Transference to the sum of 32 values (having 32 system relevant key factors) is realised by:

m(sum) = 32 * m
Var(sum) = 32*Var
S(sum) = square root(Var(sum)).

Thus, having obtained m(sum) and S(sum) the Gaussian distribution of the "random" passive sums is now completely known, no matter whether considered absolutely or relatively.

The author still has to cut off the range to the left (low values), where due to their too infrequent random occurrence the assumption is made of more than "pure" random and hence significant "independence" is determined. However, it is precisely this first left range of the Gaussian curve, which – according to the level of significance chosen – contains the first 1% (or 5%, or 10%) of the values.

Regarding the standard normal distribution (m=0, S=1) the following (previously calculated) values are obtained:

1 % of values	=< -2.33
5 % of values	=< -1.64
10 % of values	=< -1.28.

From these threshold values, now the position(s) of the borderline(s) for a significant separation into an independent and a dependent range within the management consulting system result as:

m(sum) – 1.28*S(sum) (alpha =10%, statistical certainty=90%)
m(sum) – 1.64*S(sum) (alpha = 5%, statistical certainty =95%)
m(sum) – 2.33*S(sum) (alpha = 1%, statistical certainty =99%).

With an absolute view, the following calculus results:

m(sum) = 48
Var(sum) = 32*1.25 = 40
S(sum) = 6.32.

- **Calculation of the borderline on the x-axis with different statistical certainties:**

Separation at 10% certainty = 48 – (1.28*6.32) = 39.9
Separation at 5% certainty = 48 – (1.64*6.32) = 37.6
Separation at 1% certainty = 48 – (2.33*6.32) = 33.3.

*(1) Determination of the borderline position between the independent and dependent scatter diagram ranges of the management consulting system at **10% certainty:***

With a borderline value of 39.9 the following key factors result as being within the "independent" range of the management consulting system:

KF1, KF2, KF3, KF4, KF5, KF6, KF7, KF8, KF9, KF10, KF12, KF13, KF14, KF15, F16, KF17, KF18, KF19, KF21, KF22, KF23, KF24, KF25, KF26, KF27, KF28, KF29, KF30, KF31.

With a 10% error probability (i. e. that the key factors determined are not within the independent system area) these key factors represent the management consulting system and reproduce its independent determining factors (determinants), with key factors KF1, KF2, KF3, KF4, KF5, KF6, KF7, KF8, KF9, KF10 representing the determinants of the management consultant subsystem.

With a 10% error probability, key factors KF11, KF20, KF32 appear as the dependent elements of the management consulting system.

(2) Determination of the borderline position between the independent and dependent scatter diagram ranges of the management consulting system at ***5% certainty:***

With a borderline value of 37.6 the following key factors result as being within the "independent" range of the management consulting system:

KF3, KF4, KF5, KF8, KF9, KF10, KF12, KF13, KF15, F16, KF17, KF18, KF19, KF21, KF22, KF23, KF24, KF25, KF27, KF28, KF29, KF30, KF31.

With a 5% error probability (i. e. that the key factors determined are not within the independent system area), these key factors represent the management consulting system and reproduce its independent determining factors (determinants), with key factors KF3, KF4, KF5, KF8, KF9, KF10 representing the determinants of the management consultant subsystem.

With a 5% error probability, key factors KF1, KF2, KF6, KF7, KF11, KF14, KF20, KF26, KF32 appear as the dependent elements of the management consulting system.

(3) Determination of the borderline position between the independent and dependent scatter diagram ranges of the management consulting system at ***1% certainty:***

With a borderline value of 33.3 the following key factors result as within the "independent" range of the management consulting system:

KF3, KF4, KF5, KF8, KF9, KF10, KF12, KF15, F16, KF17, KF18, KF19, KF21, KF22, KF23, KF27, KF28, KF29, KF30, KF31.

With a 1% error probability (i. e. that the key factors determined are not within the independent system area), these key factors represent the management consulting system and reproduce its independent determining factors (determinants), with key factors KF3, KF4, KF5, KF8, KF9, KF10 representing the determinants of the management consultant subsystem.

With a 1% error probability, key factors KF1, KF2, KF6, KF7, KF11, KF13, KF14, KF20, KF24, KF25, KF26, KF32 appear as the dependent elements of the management consulting system.

For the borderline position within the quadrant model (Vester, 2003, p.236) to be plausible, its mean must be identical to the one obtained by means of statistical calculation. Hence, the axes, even in the relative view, must represent all the corresponding sum values possible. If for example only the 1s and 2s appear as assessment levels in the system, at least the x-axis (passive values) runs from 32 to 64, with a left-right separation at 48. If this is not taken into consideration cases are easily incurred where statistically certain independent values appear on the quadrant model's right-hand, i. e. a contradiction occurs. Since Vester's quadrant model (2003, p.236) is the "arbitrary" one, and the statistical model the "justified" one, the former has to be adapted to the latter.

It should finally be noted that in the present case a determination of the size of each of the four quadrants may be neglected. This would not provide any further information regarding the separation between the independent and dependent ranges in the scatter diagram. These results would merely indicate whether e. g. key factor 3 lies in the active or inert ranges of the management consulting system. However, such a statement is no longer relevant for answering the present question regarding the independent area of the management consulting system, so that the calculation of the quadrant sizes is dispensable.

6.2.3 Dependent and Independent Key Factors

Statistical examination of the structure of the management consulting system shows that its more or less arbitrary separation into two halves of equal size corresponding to the independent and dependent system areas as proposed by Vester (2003) and other authors is not correct. In some concrete cases this may lead to erroneous interpretations of assumptions in the assessment of systems and hence have important consequences.

It will certainly not be surprising that person-related system factors (KF3, KF4, KF5, KF8), the willingness of the consultant organisation to co-operate (KF9) and the impact of environment conditions upon the consultant organisation (KF10) were determined as independent system elements of the management consultant subsystem, since the person-related key factors represent influence factors which given their nature are based on experience, knowledge, skills and social competence and are not susceptible to influence by other influence factors in a concrete consulting situation or only to a very slight extent . Very similar to this is the case of the system factor 'the willingness of the consultant organisation to co-operate' (KF9). This system element should be considered organisation-related and hence equivalent to the person-related system factors. Likewise, key factor 'impact of environment conditions upon the consultant organisation' will suffer little or no impact by other system factors.

This may relatively easily be conceived, as environment conditions usually exert an influence upon the consultant system through the predetermination of frame conditions and inversely there are none or only few possibilities of influence.

The object of this present work is a comparison of the two consulting concepts called management consulting and astrological business consulting. This comparison is undertaken by comparing the respective independent key factors (determinants) of the two management consultant and astrological business consultant subsystems with each other. In order to keep the error probability for the statistically determined "pure randomness" of the independent key factors as low as possible, the alpha level of significance is to be set at 1%. Table 24 lists those elements of the management consulting system which may be identified as independent (determinants) at a level of significance of 1%.

Table 24: The independent key factors of the management consulting system at a level of significance of 1% (own depiction)

The Management Consulting System		
Code	**Key factor name**	**Role of the key factor in the system**
KF 3	Person-related consultant competence	independent
KF 4	Consultant's personality structure	independent
KF 5	Consultant's experience in consulting	independent
KF 8	Cooperation-related consultant competence	independent
KF 9	Consultant organisation's willingness to co-operate	independent
KF 10	Impact of environmental conditions on consultant organisation	independent
KF 12	Client's consulting capacity	independent
KF 15	Client's capacity to provide information	independent
KF 16	Size of client organisation	independent
KF 17	Client enterprise potentials	independent
KF 18	Impact of environmental conditions on client organisation	independent
KF 19	Client organisation's enterprise culture and strategy	independent
KF 21	Consulting task complexity	independent
KF 22	Repetition frequency of consulting issue (of consulting problem)	independent
KF 23	Structuring degree of consulting problem	independent
KF 27	Project controlling intensity	independent
KF 28	Consultant's consulting potential quality	independent
KF 29	Client's consulting potential quality	independent
KF 30	Consultant's consulting process quality	independent
KF 31	Client's consulting process quality	independent

System-relevant key factors of the Management Consultant subsystem

6.3 Role Structure of the System-Relevant Key Factors of the Astrological Business Consulting System based on Secondary Data

6.3.1 Explanations on the Statistical Methods Applied

The role structure validation of the key factors in the management consulting system as identified in Chapter 4 was carried out by means of mathematical statistics (cf. 6.2). Since a role structure verification of the key factors in the astrological consulting system has to comply with the same requirements as that of the management consulting system, the author shall also in this case apply mathematical statistics to validate the role structure of the astrological consulting system.

6.3.2 Process of Verification

In analogy with the statistical procedure as under 6.2 the determination of the borderline on the x-axis for the astrological business consulting system is to be based on the central limit theorem of statistics.

If equally supposing an absolute view, then based on thirty-two (32) identified system-relevant key factors, the following calculus results:

m(sum) = 32* m
Var(sum) = 32*Var
S(sum) = square root (Var(sum))

or:
m(sum)= 32*1.5 = 48
Var(sum)= 32*1.25 = 40
S(sum)= 6.32 .

- **Calculation of the borderline on the x-axis with different statistical certainties:**

Separation at 10% certainty = 48 – (1.28*6.32) = 39.9
Separation at 5% certainty = 48 – (1.64*6.32) = 37.6
Separation at 1% certainty = 48 – (2.33*6.32) = 33.3

*(1) Determination of the borderline position between the independent and dependent scatter diagram ranges of the astrological business consulting system at **10% certainty:***

With a borderline value of 39.9 the following key factors result as being within the "independent" range of the astrological business consulting system:

KF2, KF3, KF4, KF5, KF6, KF7, KF8, KF9, KF10, KF12, KF13, KF14, KF15, F16, KF17, KF18, KF19, KF21, KF22, KF23, KF24, KF25, KF26, KF27, KF28, KF29, KF30, KF31.

With a 10% error probability (i. e. that the key factors determined are not within the independent system area), these key factors represent the astrological consulting system and reproduce its independent determining factors (determinants), with key factors KF2, KF3, KF4, KF5, KF6, KF7, KF8, KF9, und KF10 representing the determinants of the astrological business consultant subsystem.

With a 10% error probability, key factors KF1, KF11, KF20 und KF32 appear as the dependent elements of the astrological business business consulting system.

(2) Determination of the borderline position between the independent and dependent scatter diagram ranges of the astrological business consulting system at ***5% certainty:***

With a borderline value of 37.6 the following key factors result as being within the "independent" range of the astrological business consulting system:

KF3, KF4, KF5, KF8, KF9, KF10, KF12, KF13, KF15, F16, KF17, KF18, KF19, KF21, KF22, KF23, KF24, KF25, KF27, KF28, KF29, KF30, KF31.

With a 5% error probability (i. e. that the key factors determined are not within the independent system area), these key factors represent the astrological consulting system and reproduce its independent determining factors (determinants), with key factors KF3, KF4, KF5, KF8, KF9, und KF10 representing the determinants of the astrological business consultant subsystem.

With a 5% error probability, key factors KF1, KF2, KF6, KF7, KF11, KF14, KF20, KF26 und KF32 appear as the dependent elements of the astrological business consulting system.

(3) Determination of the borderline position between the independent and dependent scatter diagram ranges of the astrological business consulting system at ***1% certainty:***

With a borderline value of 33.3 the following key factors result as being within the "independent" range of the astrological business consulting system or the quadrant model:

KF3, KF4, KF5, KF8, KF9, KF10, KF12, KF15, F16, KF17, KF18, KF19, KF21, KF22, KF23, KF27, KF28, KF29, KF30, KF31.

With a 1% error probability (i. e. that the key factors determined are not within the independent system area), these key factors represent the astrological consulting system and reproduce its independent determining factors (determinants), with key factors KF3, KF4, KF5, KF8, KF9, und KF10 representing the determinants of the astrological business consultant subsystem.

With a 1% error probability, key factors KF1, KF2, KF6, KF7, KF11, KF13, KF14, KF20, KF24, KF25, KF26, KF32 appear as the dependent elements of the system of astrological business consulting.

It should finally be noted that in the present case, the determination of the size of each of the four quadrants may be neglected. It would not provide any further information regarding the separation between the independent and dependent ranges within the astrological consulting system. These results would merely indicate whether e. g. key factor 10 lies in the active or inert ranges of the astrological consulting system. However, such a statement is no longer relevant for answering the present question regarding the independent area of the management consulting system, so that the calculation of the quadrant sizes is dispensable.

6.3.3 Dependent and Independent Key Factors

Statistical examination of the structure of the astrological consulting system shows that the more or less arbitrary separation of the scatter diagram into two halves of equal size in order to visualise the independent and dependent system areas as proposed by Vester (2003) and other authors (e.g. Gomez&Probst, 2004) is not correct. In some concrete cases, this may lead to erroneous interpretations of considerations in the assessment of systems and hence have important consequences.

It will thus not be surprising that also in the astrological consultant subsystem person-related system factors (KF3, KF4, KF5, KF8), the willingness of the consultant organisation to co-operate (KF9) and the impact of environment conditions upon the consultant organisation (KF10) were determined as independent system elements. In the same way as the management consulting system, also the astrological consulting system represents a practically applied consulting approach. It may therefore be supposed that both approaches exhibit similarities which are also reflected in the role structures of system elements.

Likewise for assessing the structure of the astrological consulting system the author shall determine a level of significance of 1% (see under 6.1.3). Table 25 lists the elements of the astrological business consulting system which were identified as independent (determinants) for a level of significance of 1%.

Table 25: The independent key factors of the astrological business consulting system at a level of significance of 1% (source: own depiction).

The Astrological Business Consulting System		
Code	**Key factor name**	**Role of the key factor in the system**
KF 3	Person-related consultant competence	independent
KF 4	Consultant's personality structure	independent
KF 5	Consultant's experience in consulting	independent
KF 8	Cooperation-related consultant competence	independent
KF 9	Consultant organisation's willingness to co-operate	independent
KF 10	Impact of environmental conditions on consultant organisation	independent
KF 12	Client's consulting capacity	independent
KF 15	Client's capacity to provide information	independent
KF 16	Size of client organisation	independent
KF 17	Client enterprise potentials	independent
KF 18	Impact of environmental conditions on client organisation	independent
KF 19	Client organisation's enterprise culture and strategy	independent
KF 21	Consulting task complexity	independent
KF 22	Repetition frequency of consulting issue (of consulting problem)	independent
KF 23	Structuring degree of consulting problem	independent
KF 27	Project controlling intensity	independent
KF 28	Consultant's consulting potential quality	independent
KF 29	Client's consulting potential quality	independent
KF 30	Consultant's consulting process quality	independent
KF 31	Client's consulting process quality	independent

System-relevant key factors of the Astrological Business Consultant subsystem

6.4 Concluding Depiction: The Verified Models

The statistical verification of the two system models as compared with the assumptions by Vester (2003) and other authors (e.g. Gomez&Probst, 2004) arrives at different assessments with regard to the role structure within the system. Vester's (2003) system approach proposed the division of the quadrants of the scatter diagram vertically and horizontally into equal halves. However, such a determination of independent and dependent system areas could not be confirmed in the statistical verification.

With regard to the statistical calculation of the independent key factors in both models, i. e. those of the management consultant subsystem and of the astrological business consultant subsystem, the picture is uniform. In both subsystems key factors 3, 4, 5, 8, 9 and 10 were identified as independent system elements.

The following empirical validation shall show whether the theoretically derived and statistically determined key factors will be confirmed, modified or denied in practice.

Part III: Validation of the Theoretical Conceptualised Models by Primary Data Collection and Discussion of the Findings

Chapter 7: Validation of the System Models by Primary Data Collection

7.1 Introduction

Chapter 3 described the research procedure, including the methodology and research methods which were designed to answer the research question. This chapter now provides the detailed process of primary data collection, the method of data analysis and the results from the survey questionnaires. The researcher's methodological assumptions have been based on survey research as the most suitable research method for this study. The analysis of the survey data was performed by using descriptive statistics. Tables and graphs are presented to compare the important variables.

7.2 Primary Data Collection

7.2.1 Process of Data Collection

By screening the relevant literature, there often are mentioned phases according to which the process of data collection should be conducted. Regarding qualitative research, these phases are named the sampling procedures, access and permission, types of information collected (data sources), forms for recording the data, and the activities involved in administering the data collection.

Table 26: Phases in the Process of Collecting Data for Qualitative Research (source: own depiction).

Phases in the Data Collection Process for Qualtitative Research	
Sampling	• Purposeful sampling strategies • Small number of participants
Permissions	• Individuals • Institutional review boards
Data sources	• Interviews • Observation • Documents • Audiovisual materials
Recording the data	• Interview protocols • Observational protocols
Administering data collection	• Attending to field issues • Attending to ethical issues

7.2.1.1 Sampling Procedures

To address a research question, the researcher decides which people and research sites can best provide information, puts a sampling procedure in place, and determines the number of individuals needed to provide data.

In qualitative research, the inquirer purposefully selects individuals able to provide the necessary information. Purposeful sampling means that the researcher intentionally selects participants who have experience with the central phenomenon or the key concept being explored. A number of purposeful sampling strategies are available, each with a different purpose. One of the more popular is maximal variation sampling, in which individuals are chosen who hold different perspectives on the central phenomenon. The criteria for maximising differences depends on the study but it might be race, gender, level of schooling or any number of factors which would differentiate participants. If participants are purposefully chosen to be different in the first place their views will reflect this difference and provide a good qualitative study. Another approach is to use extreme case sampling of individuals who provide unusual, troublesome, or enlightened cases. In contrast, a researcher might use homogeneous sampling of individuals who have membership in a subgroup with distinctive characteristics. In terms of numbers, rather than selecting a large number of people, the qualitative researcher identifies a small number which will provide in-depth information about each person. The larger the number of people, the less the amount of detail typically emerging from any one individual. The numbers may range from one or two people, as in a narrative study, to 50 or 60 in a grounded theory project.

The author subjected the entire object of investigation to a comprehensive multi-stage operationalisation, including different perspectives of assessment, thereby complying with the conditions concerning Delphi types 3 and 4, as reproduced in Table 9 (page 80). For optimal applicability of the findings, "closed" questions and standardised answer options were to be used. Likewise, the author was to collect and consider qualitative participant comments in the survey.

Experiences concerning Delphi surveys in the literature differ widely in respect of an optimal scope of the group of experts. Guest et al. (2006, p. 59) found that "saturation occurred within the first twelve interviews, although basic elements for metathemes were present as early as six interviews". Häder (2002, p.94) provides a good overview of the variability of recommendations from research: According to him, different researchers state a minimum of four, seven or ten persons. There is a still greater difference regarding the maximum number: Some researchers indicate 6, 25 or 30 participants, while others are of the opinion that a growing number of participants reduce individual estimation errors, which is why the number of interviewees chosen should be as large as possible. However, experiments on the panel size necessary have shown that in Delphi surveys with two groups of different sizes the results coincided by 92.2%, which is why the authors concluded that there is no need for very large panels since it is easier to organise smaller ones which, besides, are less costive (Häder, 2002, p. 94).

For this task, a total of 54 experts were contacted and in the end 22 of these were willing to participate in the survey. The selection of participants was realised deliberately. A pre-qualified pre-Delphi survey carried out telephonically aimed to ensure that the participants already had experience in respect of the subject to be investigated and hence could be employed as competent experts for validation. In this sense, their statements do not represent theoretical assessments in regard of the interrelations expected and rather constitute actual experiences made by experts within consulting projects.

In the consultants interviewed the author further observed that the required time effort of approx. 45 – 60 minutes for the survey and even the total survey scope almost exhausted their time possibilities, a fact more than understandable given the numerous surveys and the low productivity of their activities.

The participants were chosen in such a way that as heterogeneous a distribution as possible concerning their characteristics would be the result. Thus, in respect of management consulting, consultants active in management, staff and/or IT consulting were included. With regard to astrological consultants, special attention was paid to the circumstance that they also had experience in economic issues. The selection thus made ensures that the results obtained are comparable to the statements deduced theoretically and not representative of only restricted perspectives. Annex 7 provides an overview of the companies and organisations contacted. For data privacy reasons, the information stated there refers to the companies, organisations and consultants contacted without identifying those actually participating in the survey.

Given the deliberate selection of participants, the author should state that the results obtained must not be treated mathematical-statistically, i. e. strictly speaking, generalisation of results is not admissible. In order to be able to statistically generalise the results the employment of random samples would be required. However, given the efforts needed to make out potential participants from the universe[30], due to all relevant selection characteristics as well as time and financial restrictions, this neither can actually be achieved nor does it seem proportionate.

Special attention was paid to the circumstance that the interviewees were familiar with the object of investigation and therefore able to provide correspondingly qualified statements regarding the assessment of the theoretically derived interactions.[31] As will be shown in the following, the findings provide more than sufficient clarity and unambiguity as to guarantee the survey goal: a validation of the two subsystems.

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[30] The universe would result from the sum of all management consultants and all astrological consultants having advised companies.

[31] Also Cropley (2002, p.80) is of the opinion that for certain investigations familiarity with the object of investigation should be prioritised over compliance with sampling theory.

7.2.1.2 Selection of Participants, Access and Permissions

Regarding the selection of the participants, the first thing which had to be done was to consider which categories of jobs could actually be considered as business or management consulting. Consultancy is a very broad field and there are numerous types of consultants each specialised in specific areas. The scope of consultants therefore had to be limited to business or management consultants and astrological consultants familiar with business consulting activities. In order to widen the scope of consultants willing to participate in the survey, the author decided that the sample should include business consultants operating at different levels within organisations and also those working for different types of company.

The primary data collection was carried out in two phases from December 2009 to April 2010. E-mails were sent to major consultancies and consultants in order to gain contacts. Also oral enquiries were made to inhouse consultants to ask them if they were willing to participate in the survey. Business consultancy is a highly challenging area where consultants are assigned projects involving interviews, meetings and writing proposals. It therefore involves considerable amounts of travel. It could often take several weeks before consultants could find a convenient time to fill in the questionnaire or to meet for the interview. Interviews were conducted at consultants' offices, always at a time and on a day agreed upon between the two parties to ensure that the interviewees would be able to concentrate fully on their answers.

Obtaining data from consultancies, organisations and consultants requires first obtaining their permission for data collection. In the written survey, this permission was asked for by adding an accompanying letter to the questionnaire. In those cases in which an interview took place the identified interviewee was individually requested to give his or her permission for data collection. When asking for permission, the author explicitly stated in respect of both the written and oral survey why exactly this addressee of the survey had been chosen. It was argued that the selection was done because of his or her knowledge and experience in this realm and assurance was given that any data obtained would be used exclusively for research purposes and absolutely anonymously according to the rules of data protection. Additionally, for reasons of promoting a willingness to support by participating in the survey, the author stressed in the two covering letters that the time requirement for answering the questions would be approximately 45-60 minutes and that the structure of the questions had been kept simple. Copies of the two covering letters are shown in Annex 8.

7.2.1.3 Data Sources and Recording

The survey was carried out from December 2009 to April 2010. The data collection was conducted directly by the author as primary data source. As a method of data collection the Delphi technique was used as a suitable research method (cf. Section 3.4.2). In the first stage, the questionnaire designed was presented to the respondents by using the techniques of e-mailing and interviewing. As to the procedure of questioning, a written (e-mailing) and oral (interview) questioning was arranged by using the same uniform designed questionnaire (cf. Annex 8). In a second stage, where necessary, the respondents were confronted with the consolidated group results of all findings of the questioning procedure from the first stage by telephone or personally, where possible. The survey questionnaire and the findings of questioning were recorded electronically.

7.2.1.4 Administering the Data Collection

Before data gathering could be started, the author needed to consider the time to identify and recruit the experts of both realms, management consulting and astrological consulting, what recording equipment should be employed for the whole survey procedure, where the documents and the details of its proper placement were to be located, the time expense for bringing together the feedback returned to get ready for starting the process of data analysis. In addition, the author had to make sure that ethical issues had also been considered adequately, such as providing reciprocity to participants for their willingness to provide data, for example, the author's acknowledgement of gratitude, handling sensitive information and disclosing the purpose of the research.

7.2.2 Survey Design

The major difficulty in designing the questionnaire was to ensure that it was feasible for every kind of consultant. In other words, the questionnaire had to be designed in such a way that questions were applicable and could be answered by the consultants contacted, that it would not threaten consultants.

The questionnaire was developed based on the theoretically derived system-relevant key factors of both the management consultant and the astrological business consultant subsystems (cf. Chapters 4 and 5). The questionnaire consists of Parts I and II. Part I systematically examines the system-relevant key factors. This part of the questionnaire deals with closed questions: '... relevant or non-relevant for the quality of consultation'. The object of Part II is to find out the influence interrelations of the key factors. In this part II, the answers refer to the four pre-coded categories: 'no influence', 'light influence', 'medium influence', 'strong influence'.

The survey questionnaire followed a pre-defined procedure. The survey was preceded by a pre-test interview to ensure the comprehensibility of the questionnaire and the terminology used in it. Three academics from the University engaged in management studies and one consultant participated in this pre-test interview. The results of the personally conducted pre-test interview showed that in some areas the questionnaire required modifications. This applied especially to the use of certain terms such as the "homogeneous perception of the consulting goal by consultant and client", which were not directly comprehensible without further explanations by the author. Given such experiences, the author eliminated special terminology in the questionnaire, replacing it by corresponding more generally understandable formulations (the questionnaire presented can be found in Annex 8).

The questionnaire was presented to each expert in the same manner. The survey procedure was carried out in two stages as mentioned above:

One questionnaire each was elaborated to validate the management consulting system and the astrological business consulting system. Both questionnaires were developed based on the theoretically derived system-relevant key factors (cf. Chapters 4 and 5). Each questionnaire consists of Parts I and II. Part I systematically examines the system-relevance of the key factors with regard to the two system models. The object of Part II is to find the influence interrelations of the key factors which were validated before through the experts.

(1) Stage 1:

In the first stage the experts were confronted with the theoretically identified system-relevant key factors of the management consulting and astrological business consulting systems. In this Part I of the questioning, the experts were given the opportunity to express his or her affirmation or denial in respect of the key factors theoretically developed in Chapters 4 and 5, and he or she could also add others, if deemed necessary. In Part II of the questioning the experts were confronted with the interrelations of the system-relevant key factors within the corresponding system which were theoretically identified as before (cf. Chapters 4, 5).

(2) Stage 2:

In the second stage, if necessary, the experts were telephonically or, where possible, personally confronted with the consolidated group results of all questioning findings from the first stage, asking them to provide further assessments of these.

Exemplarily for the validation of a question for Parts I and II, the questionnaire design is reproduced in Figure 52 below.

Figure 52: Exemplary Representation of Questionnaire Parts I and II (source: own depiction).

Part I of the questionnaire

Question 3:

Personal consulting competence:

refers to the consultant's professional expertise, his/her expert knowledge.

Should be considered as **relevant** for the quality of consultation	Should be considered as **non-relevant** for the quality of consultation

Part II of the questionnaire

Question 3:

Factor of influence: **His/her personal consulting competence** (professional competence).

What is this factor's influence upon the factor stated below :

	No influence	**Light influence**	**Medium influence**	**Strong influence**
The consultant's consulting experience (e.g. empathy, experience with instruments)				

7.3 Data Analysis

7.3.1 Introduction

The previous Chapter 3 described the research methodology and research methods which were designed to answer the research questions. This section now describes the process of data analysis, the results from questionnaire surveys, the interviews and the participant observations represented into the final theme. The present section has two purposes; the first is to describe and explain the principles of qualitative data analysis used. The second is to provide information on the research interpretations, explanations, comparisons and justifications of the results which were collected. The findings of this research are presented as the outcome of the primary data collection analysis.

The survey research seeks an understanding of observable elements of reality. Its result is an analytical although not statistical generalisation of the observations made and must be classified within qualitative research. The data used was from experts as a primary data source and was collected by means of a survey questionnaire procedure, the Delphi methodology. The descriptive statistics analysis of the qualitative data was performed by using MS Excel software. Tables and graphs are presented to illustrate the findings. This section describes the process of the descriptive statistics analysis. Descriptive statistics analysis seems to be the best qualitative research approach. After reaffirming that the research findings answered the research questions and confirming the reliability and validity of the data, the analysis was considered to be complete. The following part of this research was then to mobilise the findings into a discussion of the results.

The primary data collection was carried out from December 2009 to April 2010. Once all results were at hand and the modifications arising from the second, personal interview had been included in the data set, the results could be evaluated. The following steps were conducted:

(1) In the first part of the statistical processing the empirical raw data obtained was analysed in as far as the system relevance of key factors for the two systems, the management consulting system and the astrological business consulting system, was concerned.

(2) The second part of the statistical processing focused on the interrelation between the system-relevant key factors of the respective system on the one hand and the key factors of its consultant subsystem on the other hand. As a result two expert-validated consultant subsystems arose, namely the management consultant and astrological consultant subsystems, which are confronted with each other in Section 7.5.

7.3.2 Preliminary Analysis

54 experts were contacted. After the data set returned had been checked for outliers, it could be recorded that a total number of 22 respondents participated in this study. The selection of participants was realised deliberately. A pre-qualified pre-Delphi survey partially carried out telephonically and by face-to-face meetings aimed to ensure that the participants already had experience in respect of the subject to be investigated and hence could be employed as competent experts for validation. The participants were chosen in such a way that as heterogeneous a distribution as possible concerning their characteristics would be the result. Thus, in respect of management consulting, consultants active in management, staff and/or IT consulting were included. In regard of astrological consultants, special attention was paid to the circumstance that they also had experience in economic issues. This selection shall make ensure that the results obtained are comparable to the statements deduced theoretically. Annex 7 provides an overview of the companies and organisations contacted. The information stated there refers to the companies, organisations contacted without identifying those actually participating in the survey. Those experts (consultants) directly contacted are not listed on Annex 7 for privacy reasons likewise.

The statistics show that in total 63.6% of the experts were astrological consultants (14 experts) and 36.4% business consultants (8 experts). From the total number of 22 participants 59.1% were female and 40.9% were male. This relation was due to the fact that 11 astrological consultants and 2 business consultants were female, a total number of 13. When looking at the male participants, it can be stated that 3 astrological consultants and 6 business consultants took part in the survey. The age ranges of the experts were: between 20 and 40 years (22.7%), between 40 and 60 years (68.2%) and over 60 years (9.1%). A total number of 5 experts responded from the U.S.A. and 17 experts were located in the European region.

Table 27: Overview of the participants in the survey (source: own depiction)

	Number of Participants in the Survey	Female	Male	20 - 40 years	40 - 60 years	over 60 years
Astrological Consultants	14	11	3	2	10	2
Business Consultants	8	2	6	3	5	0
Total Number of Participants in the Survey	22	13	9	5	15	2

7.3.3 Secondary Analysis

In order to accept or reject the two consulting systems theoretically developed from secondary data, the empirical data collected by the Delphi technique had to be analysed. The Delphi survey was carried out from December 2009 to April 2010. Once all results were at hand and the modifications arising from the second, personal interview had been included in the data set, the results could be evaluated. The analysis of the empirical data was then conducted by descriptive statistics. By the first part of the statistical processing, the system relevance of any of the key factors of the two consulting systems was tested. The second processing part checked, with regard to each of the two consulting systems, the interrelations between (1) the system-relevant key factors of the whole system and (2) the system-relevant key factors of the corresponding subsystems, the management consultant and astrological business consultant subsystem. As a result, two expert-validated models arose, namely the management consulting and astrological business consulting systems, which are confronted with each other at the end of this chapter (Section 7.5).

Before conducting the descriptive statistical processing, the criterion and the limit tolerated with regard to the analysis of the system-relevance of the key factors have to be determined.

7.3.3.1 Determining the Criterion and Limit Tolerated for Analysis of the System-Relevance of the Key Factors

In the first step of the statistical processing, the author determines the practical system relevance of the key factors of the consulting systems. To this end, criterion FSR (= frequency regarding system relevance) has been determined either to include the key factor as a system-relevant element in the consulting system or to discard it. Criterion FSR means the total distribution of affirmation or denial for key factors in respect of all existing expert statements. As an indicator the author uses the statistical mode, which reflects the absolute and relative frequencies of affirmation regarding each of the 22 individual statements on the system relevance of 32 key factors.

In order to include or discard a key factor regarding the consulting system, limiting values have been established. The author defines an absolute mode larger than 11 ($m_n > 11$) suitable to tolerate the retention of the key factor in the consulting system. Or, expressed in a relative mode: With more than 50% ($m_p > 50\%$) of participants affirming the system relevance of the key factor, its retention in the consulting system is accepted. When the affirmation scores a value near exclusion criterion, the issue of the system relevance of the key factor and its retention in the system needs to be addressed to the experts in a follow-up activity. Any violation of criterion FSR leads to direct exclusion from the consulting model.

Table 28: Criterion FSR and exclusion criterion concerning the investigation of the experts' affirmation of consulting system key factors (source: own depiction).

criterion *FSR*	indicator for criterion FSR	exclusion criterion
overall distribution of affirmation	absolute mode	$m_n \leq 11$
	relative mode	$m_p \leq 50\%$

7.3.3.2 Determining the Criterion and Limit Tolerated for Analysis of the Interrelation of the System-Relevant Key Factors

In this case, criterion FIR (frequency regarding the interrelation between the system-relevant key factors in the system) shall help to determine the total distribution of affirmations regarding the intensity of interrelation in regard of all existing expert statements.

By analysing the interrelation of the key factors within the system, the author can draw conclusions from the influence behaviour of the key factor and thus its role in the system. The role of the key factor is determined on the one hand by its capability to exert influence upon other key factors and on the other hand by whether it is influenced by other key factors. This means that the key factor is either independent of the behaviour of the other key factors or dependent on them.

In the following the author describes the criterion FIR:

As in preceding Section 7.3.3.1, the author uses the affirmation mode m as an indicator for each individual statement. An examination of this simple statistical value will be sufficient since the author merely finds out which of the four given interrelations obtains the highest degree of affirmation.

In order to determine the interrelation with the largest affirmation, the author has to determine suitable limits. According to the definition for the model resulting, the author considers which of the four given answer options obtained the largest affirmation ($m_n > 11$). This ensures that interrelations to be considered further always have a larger affirmation by the majority of experts than the remaining three answer options.

Table 29: Criterion FIR and limit concerning the investigation of the intensity of consulting system key factors in the interaction (source: own depiction).

criterion *FIR*	indicator for criterion FIR	exclusion criterion
overall distribution of affirmation	absolute mode	mn ≤ 11
	relative mode	mp ≤ 50%

After describing the criterion for analysing the interrelation of each system-relevant key factor, the author proceeds to the statistical analysis of the data collected.

7.3.3.3 Analysis Results Regarding the Practical System Relevance of the Key Factors of the Management Consulting System

All statistically calculated indicators are shown in a table reproduced in Annex 9.

The feedback from the expert survey directly confirmed the system relevance of the 32 key factors (100%) through the pre-defined criterion FSR (mn= >11), a fact allowing for the inference of their general system relevance in practice.

In addition the expert survey produced two further system-relevant key factors, which were subsequently included in the management consulting system: for one part, the system element "consultant team homogeneity", considered to be essential for the management consultant subsystem especially by the management consultants group. As a justification, it was argued that the increasingly complex and manifold consulting tasks can currently only be solved successfully with a homogeneous team of consultants. Thus the consulting team's composition and/or homogeneity are of decisive importance for the quality of management consulting. The key factor "consultant team homogeneity" is hence included as a further system-relevant key factor in the management consultant model as a consequence of the survey result.

Likewise, the key factor "client feedback" identified was included in the management consulting system. This key factor was considered as a system-relevant element of the management consulting system by a large majority in both groups. Almost coincidentally it was adduced that ongoing client feedback during the consulting process is indispensable for the consulting result and quality.

In the following, the author discusses the result from the survey in detail:

(1) All 32 key factors theoretically developed from the secondary data collection were confirmed (FSR: absolute mode mn= >11).

(2) Out of the 32 key factors, 4 key factors were confirmed, but only just (FSR: absolute mode mn= >11<14). These key factors are:

- Key factor 1 (consultant's possibility of influencing the problem-solving process): absolute mode: mn = 12.
- Key factor 2 (consultant's mode of conducting the consultation): absolute mode: mn = 13.
- Key factor 16 (the client's social status, his / her / its economic importance): absolute mode: mn = 12.
- Key factor 27 (the intensity of the project controlling): absolute mode: mn = 12.

(3) Those key factors newly included in the management consulting system are:

- Key factor A (consultant team homogeneity): absolute mode: mn = 16.
- Key factor B (client's feedback): absolute mode: mn = 20.

The result from the expert survey with regard to the system relevance of the key factors is presented in Table 30:

Table 30: The system-relevant key factors of the Management Consulting system empirically validated (source: own depicition).

Management Consulting System		
Code	**Result from the expert survey**	
KF 1	Consultant's possibility of influencing the problem-solving	confirmed through practice
KF 2	Consultant's mode of conducting the consultation	confirmed through practice
KF 3	Person-related consultant competence	confirmed through practice
KF 4	Consultant's personality structure	confirmed through practice
KF 5	Consultant's experience in consulting	confirmed through practice
KF 6	Consultant's workshare	confirmed through practice
KF 7	Coinciding focus of perception of the consulting objective by both consultant and client	confirmed through practice
KF 8	Cooperation-related consultant competence	confirmed through practice
KF 9	Consultant organisation's willingness to co-operate	confirmed through practice
KF 10	Impact of environmental conditions on consultant organisation	confirmed through practice
KF 11	Client's willingness to learn and co-operate	confirmed through practice
KF 12	Client's consulting capacity	confirmed through practice
KF 13	Client's willingness to trust	confirmed through practice
KF 14	Client's workshare in consultation	confirmed through practice
KF 15	Client's capacity to provide information	confirmed through practice
KF 16	Size of client organisation	confirmed through practice
KF 17	Client enterprise potentials	confirmed through practice
KF 18	Impact of environmental conditions on client organisation	confirmed through practice
KF 19	Client organisation's enterprise culture and strategy	confirmed through practice
KF 20	Co-operation intensity	confirmed through practice
KF 21	Consulting task complexity	confirmed through practice
KF 22	Repetition frequency of consulting issue (of consulting problem)	confirmed through practice
KF 23	Structuring degree of consulting problem	confirmed through practice
KF 24	Use of standardised consulting methods	confirmed through practice
KF 25	Use of standardised consulting tools	confirmed through practice
KF 26	Use of electronic media and software	confirmed through practice
KF 27	Project controlling intensity	confirmed through practice
KF 28	Consultant's consulting potential quality	confirmed through practice
KF 29	Client's consulting potential quality	confirmed through practice
KF 30	Consultant's consulting process quality	confirmed through practice
KF 31	Client's consulting process quality	confirmed through practice
KF 32	Consulting result quality	confirmed through practice
KF-A		Consultant team homogeneity (newly included)
KF-B		Client's feedback (newly included)

In the following the outcome with regard to key factors 1, 2, 16, 27 and A,B is explained.

With regard to point (2):

One close-run first outcome emerges in examining the survey result with regard to key factor 1 (consultant's possibility of influencing the problem-solving process). Although according to practical expert experience this key factors should be considered to be system-relevant by a majority of experts (absolute mode m_n =12), a large number of experts do not relate any system relevance to it, so that there should be further discussion as to whether it is an element of the management consulting system or not. In Table 31, the statistical analysis of the system relevance of key factor 1 is reproduced.

Table 31: Absolute and relative frequency distribution of affirmation of system relevance of key factor 1 (consultant's possibility of influencing the problem-solving process) – (source: own depiction).

Key factor 1 (Management Consulting system) - criterion FSR			
group	statement	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	5	63%
	Should be considered as non-relevant for the quality of management consultation	3	38%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	7	50%
	Should be considered as non-relevant for the quality of management consultation	7	50%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**12**	**55%**
	Should be considered as non-relevant for the quality of management consultation	**10**	**45%**

The subsequent expert confrontation with this result did not produce a new or different assessment. So although the system relevance of key factor 1 was confirmed in practice there is room for further discussion, given the ambiguous result.

Also key factor 2 (consultant's mode of conducting the consultation) apparently provides a similar result. Though in this case the majority of participants' affirmation (absolute mode m_n=13) in regard of key factor system relevance is slightly clearer than in the case of key factor 1, taking into account the total number of expert statements such affirmation must still be regarded as lying within the border range.

A second expert confrontation with the result proved to be somewhat difficult since the participants, given the – in their opinion – clear appraisal did not see any further need for discussion. Not all experts were available for second discussions so that it was no longer possible to verify this result. In view of this only the result stated below can be used for further examination.

Table 32: Absolute and relative frequency distribution of affirmation of system relevance of key factor 2 (consultant's mode of conducting the consultation) – (source: own depiction).

Key factor 2 (Management Consulting system) - criterion FSR			
group	**statement**	**absolute mode m_n**	**relative mode m_p**
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	7	88%
	Should be considered as non-relevant for the quality of management consultation	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	6	43%
	Should be considered as non-relevant for the quality of management consultation	8	57%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**13**	**59%**
	Should be considered as non-relevant for the quality of management consultation	**9**	**41%**

The expert statements with regard to key factor 16 (the client's social status, his/her/its economic importance) were equally ambiguous. Pursuant to practical expert experience, this key factor is considered to be system-relevant by a majority (absolute mode mn=12), however a large number of experts do not relate any system relevance to this key factor, so that there should be further discussion as to whether it is an element of the management consulting system or not.

Table 33: Absolute and relative frequency distribution of affirmation of system relevance of key factor 16 (the client's social status, his / her / its economic importance) – (source: own depiction).

Key factor 16 (Management Consulting system) - criterion FSR			
group	**statement**	**absolute mode m_n**	**relative mode m_p**
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	6	75%
	Should be considered as non-relevant for the quality of management consultation	2	25%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	6	43%
	Should be considered as non-relevant for the quality of management consultation	8	57%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**12**	**55%**
	Should be considered as non-relevant for the quality of management consultation	**10**	**45%**

The result in respect of key factor 27 (the intensity of the project controlling) is very similar. Although a majority of experts affirmed the key factor's system relevance (absolute mode mn=12), a large number of experts do not relate any system relevance to this key factor, so that there should be further discussion as to whether it is an element of the management consulting system or not.

Table 34: Absolute and relative frequency distribution of affirmation of system relevance of key factor 27 (the intensity of the project controlling) – (source: own depiction).

Key factor 27 (Management Consulting system) - criterion FSR			
group	statement	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	7	88%
	Should be considered as non-relevant for the quality of management consultation	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	5	36%
	Should be considered as non-relevant for the quality of management consultation	9	64%
consultants n = 22	Should be considered as relevant for the quality of management consulting	12	55%
	Should be considered as non-relevant for the quality of management consultation	10	45%

With regard to point (3):

As already mentioned, the key factors "consultant team homogeneity" (absolute mode mn=16) and "client feedback" (absolute mode mn=20) were identified as additional elements of the management consulting system within the expert survey context. For this reason, these key factors are newly included in the management consulting system.

Table 35: Absolute and relative frequency distribution of affirmation of system relevance of key factor A (homogeneity of the consultants' team) – (source: own depiction).

Key factor A (Management Consulting system) - criterion FSR			
group	statement	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	8	100%
	Should be considered as non-relevant for the quality of management consultation	0	0%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	8	57%
	Should be considered as non-relevant for the quality of management consultation	6	43%
consultants n = 22	Should be considered as relevant for the quality of management consulting	16	73%
	Should be considered as non relevant for the quality of management consultation	6	27%

Table 36: Absolute and relative frequency distribution of affirmation of system relevance of key factor B (client's feedback) – (source: own depiction).

Key factor B (Management Consulting system) - criterion FSR			
group	statement	absolute mode m_h	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	7	88%
	Should be considered as non-relevant for the quality of management consultation	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	13	93%
	Should be considered as non-relevant for the quality of management consultation	1	7%
consultants n = 22	Should be considered as relevant for the quality of management consulting	20	91%
	Should be considered as non-relevant for the quality of management consultation	2	9%

7.3.3.4 Analysis Results Regarding the Practical System Relevance of the Key Factors of the Astrological Business Consulting System

The feedback from the expert survey does not confirm all the 32 key factors as system-relevant for the astrological business consulting system. The result shows that out of the 32 key factors provided only 29 key factors were confirmed. Three key factors were excluded from the astrological business consulting system as not system-relevant. From the number of 29 key factors confirmed, one key factor was considered to be system-relevant, but with a very close-run result. Newly included in the astrological business consulting system was key factor B (client's feedback). All statistically calculated indicators are shown in a table reproduced in Annex 10.

The result from the expert survey with regard to the system relevance of the systems's key factors is presented in Table 37:

Table 37: The system-relevant elements of the Astrological Business Consulting system empirically validated – (source: own depiction).

Astrological Business Consulting System		
Code	**Result from the expert survey**	
KF 1	Consultant's possibility of influencing the problem-solving	confirmed through practice
KF 2	Consultant's mode of conducting the consultation	not confirmed
KF 3	Person-related consultant competence	confirmed through practice
KF 4	Consultant's personality structure	confirmed through practice
KF 5	Consultant's experience in consulting	confirmed through practice
KF 6	Consultant's workshare	confirmed through practice
KF 7	Coinciding focus of perception of the consulting objective by both consultant and client	confirmed through practice
KF 8	Cooperation-related consultant competence	confirmed through practice
KF 9	Consultant organisation's willingness to co-operate	confirmed through practice
KF 10	Impact of environmental conditions on consultant organisation	confirmed through practice
KF 11	Client's willingness to learn and co-operate	confirmed through practice
KF 12	Client's consulting capacity	confirmed through practice
KF 13	Client's willingness to trust	confirmed through practice
KF 14	Client's workshare in consultation	confirmed through practice
KF 15	Client's capacity to provide information	confirmed through practice
KF 16	Size of client organisation	not confirmed
KF 17	Client enterprise potentials	confirmed through practice
KF 18	Impact of environmental conditions on client organisation	confirmed through practice
KF 19	Client organisation's enterprise culture and strategy	confirmed through practice
KF 20	Co-operation intensity	confirmed through practice
KF 21	Consulting task complexity	confirmed through practice
KF 22	Repetition frequency of consulting issue (of consulting problem)	confirmed through practice
KF 23	Structuring degree of consulting problem	confirmed through practice
KF 24	Use of standardised consulting methods	confirmed through practice
KF 25	Use of standardised consulting tools	confirmed through practice
KF 26	Use of electronic media and software	confirmed through practice
KF 27	Project controlling intensity	not confirmed
KF 28	Consultant's consulting potential quality	confirmed through practice
KF 29	Client's consulting potential quality	confirmed through practice
KF 30	Consultant's consulting process quality	confirmed through practice
KF 31	Client's consulting process quality	confirmed through practice
KF 32	Consulting result quality	confirmed through practice
KF-B		Client's feedback (newly included)

In the following, the author discusses the result from the survey in detail:

(1) Out of the 32 key factors theoretically developed from the secondary data collection, three key factors were not confirmed (FSR: absolute mode mn= ≤11). The key factors excluded from the astrological business consulting system are:

- Key factor 2 (consultant's mode of conducting the consultation): absolute mode: mn = 9.
- Key factor 16 (the client's social status, his / her / its economic importance): absolute mode: mn = 8.
- Key factor 27 (the intensity of the project controlling): absolute mode: mn = 10.

(2) Out of the 32 key factors, one key factor was confirmed, but only just (FSR: absolute mode mn= >11<14). This key factor is:

- Key factor 1 (consultant's possibility of influencing the problem-solving process): absolute mode: mn = 12.

(3) The key factor newly included in the system and regarded as being qualified for the astrological business consulting system is:

- Key factor B: (client's feedback): absolute mode: mn = 20.

In the following the result from the expert survey is explained in more detail:

With regard to point (1):

According to the survey result in terms of key factor 2 (consultant's mode of conducting the consultation), the number of affirmative opinions regarding the system relevance of this key factor attained 9 affirmations (mn=9) and it hence does not meet the above criterion (mn > 11) for remaining in the system.

Upon the basis of talks held outside the survey, it soon became very clear during the survey process that this key factor would not be seen as system-relevant by the majority of participants. As a justification, a majority argued that, given its special features, astrological management consulting focuses basically on the delivery of problem-oriented expert knowledge, with other delivery methods, such as for example the moderation and steering of problem-solving processes, not being found in the astrological consulting portfolio as a matter of principle. In the result, this key factor was considered to be non-system-relevant by the experts. In consequence, key factor 2 is excluded from the astrological business consulting system.

Table 38: Absolute and relative frequency distribution of affirmation of system relevance of key factor 2 (consultant's mode of conducting the consultation) – (source: own depiction).

Key factor 2 (Astrological Business Consulting system) - criterion FSR			
group	statement	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	7	88%
	Should be considered as non-relevant for the quality of management consultation	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	2	14%
	Should be considered as non-relevant for the quality of management consultation	12	86%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**9**	**41%**
	Should be considered as non-relevant for the quality of management consultation	**13**	**59%**

Likewise there were no affirmative majorities for key factors 16 and 27 to remain in the astrological business consulting system. The system relevance of these two key factors was clearly denied by the group of astrological consultants. Key factor 16 received only 8 affirmations (m_n=8). Regarding key factor 27 only 10 experts (m_n=10) conceded system relevance for the astrological consulting system. Hence both key factors do not meet the predefined criterion for retention in the system ($m_n > 11$).

Table 39: Absolute and relative frequency distribution of affirmation of system relevance of key factor 16 (the client's social status, his / her / its economic importance) – (source: own depiction).

Key factor 16 (Astrological Business Consulting system) - criterion FSR			
group	statement	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	6	75%
	Should be considered as non-relevant for the quality of management consultation	2	25%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	2	14%
	Should be considered as non-relevant for the quality of management consultation	12	86%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**8**	**36%**
	Should be considered as non-relevant for the quality of management consultation	**14**	**64%**

Table 40: Absolute and relative frequency distribution of affirmation of system relevance of key factor 27 (the intensity of the project controlling) – (source: own depiction).

Key factor 27 (Astrological Business Consulting system) - criterion FSR			
group	statement	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	7	88%
	Should be considered as non-relevant for the quality of management consultation	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	3	21%
	Should be considered as non-relevant for the quality of management consultation	11	79%
consultants n = 22	Should be considered as relevant for the quality of management consulting	10	45%
	Should be considered as non-relevant for the quality of management consultation	12	55%

With regard to point (2):

According to practical expert experience, in fact key factor 1 was considered to be system-relevant by the experts (absolute mode mn=12), but with a very close result. Assessments of survey participants with regard to practical system relevance are largely identical with the results regarding the management consulting system.

Table 41: Absolute and relative frequency distribution of affirmation of system relevance of key factor 1 (consultant's possibility of influencing the problem-solving process) – (source: own depiction).

Key factor 1 (Astrological Business Consulting system) - criterion FSR			
group	statement	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	5	63%
	Should be considered as non-relevant for the quality of management consultation	3	38%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	7	50%
	Should be considered as non-relevant for the quality of management consultation	7	50%
consultants n = 22	Should be considered as relevant for the quality of management consulting	12	55%
	Should be considered as non-relevant for the quality of management consultation	10	45%

The subsequent expert confrontation with this result did not produce a new or different assessment. The participants confirmed their statements. The system relevance of key factor 1 was hence confirmed by the practice.

With regard to point (3):

As already mentioned before, the key factor "client's feedback" was identified as an additional system-relevant element. Affirmation for inclusion in the astrological business consulting system with mode of 20 (mn=20) was identical with that affirmation with regard to the management consulting system.

Table 42: Absolute and relative frequency distribution of affirmation of system relevance of key factor B (the client's feedback) – (source: own depiction).

Key factor B (Astrological Business Consulting system) - criterion FSR			
group	statement	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	7	88%
	Should be considered as non-relevant for the quality of management consultation	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	13	93%
	Should be considered as non-relevant for the quality of management consultation	1	7%
consultants n = 22	Should be considered as relevant for the quality of management consulting	20	91%
	Should be considered as non-relevant for the quality of management consultation	2	9%

After revealing key factor differences in the practical appraisals on practical system relevance in both consulting models, the author shall focus in the following sections on the survey findings regarding the interrelations between the key factors of the respective system.

7.3.3.5 Analysis Results Regarding the Practical Relevance of the Interrelations of System Relevant Key Factors of the Management Consultant Subsystem

In the second step of statistical processing, the author determines the practical relevance of the mutual influence intensities between the individual key factors of the management consultant subsystem and that of the management consulting system. By determining the influenceability of the key factors of the management consultant subsystem, the author aims to find the positions of these key factors validated by practice, from which its dependent or independent character can be derived. In order to identify the position of the key factor within the system, the passive value of the influence intensity, representing its influenceability, shall be used as statistical factor.

The following Table 43 gives a summary of the findings from the expert survey regarding these influence intensities (passive values). The result from the survey is reproduced in more detail in a table in Annex 11**.**

Table 43: Assessment of the influenceability with regard to the key factors of the management consultant subsystem (source: own depiction).

The Management Consultant subsystem		
Code	**Key factor name**	**Empirically determined passive values**
KF 1	Consultant's possibility of influence upon problem-solving	54
KF 2	Consultant mediacy	57
KF 3	Person-related consultant competence	32
KF 4	Consultant's personality structure	23
KF 5	Consultant's experience in consulting	31
KF 6	Consultant workshare	48
KF 7	Coinciding focus of perception of consulting objective by both consultant and client	48
KF 8	Co-operation-related consultant competence	34
KF 9	Consultant organisation's willingness to co-operate	35
KF 10	Impact of environmental conditions on consultant organisation	12
KF 20	Co-operation intensity	45
KF-A	Consultant team homogeneity	18

After transferring the results from the expert survey into an adjacency matrix first and then into a scatter diagram (see Annex 13), the positions of the key factors of the management consultant subsystem could be visualised. This step makes visible whether the key factor lies in the dependent or the independent range of the management consulting system and thus can be identified as an independent element of the management consultant subsystem. In order to establish the determinants of the validated management consultant subsystem (the independent key factors), the author applies the same statistical method as in Section 6.2. There, the determinants of the theoretically developed management consultant subsystem have been established on the basis of mathematical statistics:

- **Calculation in absolute values:**

Given the results of the expert survey, viewed in absolute terms, there is a uniform distribution in regard of the 4 possible results (assessment levels 0-3). Their arithmetic mean (m), variance (Var) and standard variation (S) may be calculated from the series of respective results considered:

As a result of the empirical investigation with regard to the management consulting system, 34 summands emerge in the adjacency matrix as resulting column sum values (passive sum = influenceability of key factors).

Absolute:

Arithmetic mean (m) = (0+1+2+3)/4 = 1.5
Variance (Var) = [(0-1.5)^2+(1-1.5)^2+(2-1.5)^2+(3-1.5)^2]/4 = 5/4 = 1.25
Standard variation (S) = square root(Var)

Transference to the sum of 34 values (34 system-relevant key factors) is realised by:

m(sum) = 34 * m
Var(sum) = 34*Var
S(sum) = square root(Var(sum)).

Regarding the standard normal distribution (m=0, S=1) the following value is obtained:

1 % of values =< -2.33

From this threshold value, now the position of the line for a significant separation into an independent and a dependent range within the management consulting system results as:

m(sum) – 2.33*S(sum) (alpha = 1%, statistical certainty =99%).

With an absolute view, the following calculus results:

m(sum) = 51
Var(sum) = 34*1.25 = 42.5
S(sum) = 6.52.

- **Calculation of the borderline on the x axis at 1% statistical certainty:**

Determination of the borderline position between the independent and dependent scatter diagram ranges of the management consulting system at 1% certainty:

Separation at 1% certainty = 51 – (2.33*6.52) = 35.8.

With a borderline value of 35.8 (at 1% certainty), the following key factors result as within the "independent" range of the management consulting system: KF3, KF4, KF5, KF8, KF9, KF10 und KF-A.

As a conclusion from the analysis of the expert survey, the author can now state that, with a 1% error probability, the key factors

KF3, KF4, KF5, KF8, KF9, KF10 und KF-A

represent the management consultant subsystem and reproduce its independent determining factors (determinants).

Table 44: Determinants of the validated management consultant subsystem (source: own depiction).

The Management Consultant subsystem					
Code	Key Factor Name	Empirically determined passive values	'Independent range' of the Management Consulting System at 1% certainty (borderline value)	Key factor's role in the Management Consulting System	Determinants of the Management Consulting Subsystem
KF 1	Consultant's possibility of influence upon problem-solving	54	35.8	dependent range	no determinant
KF 2	Consultant mediacy	57	35.8	dependent range	no determinant
KF 3	Person-related consultant competence	32	35.8	independent range	determinant
KF 4	Consultant's personality structure	23	35.8	independent range	determinant
KF 5	Consultant's experience in consulting	31	35.8	independent range	determinant
KF 6	Consultant workshare	48	35.8	dependent range	no determinant
KF 7	Coinciding focus of perception of consulting objective by both consultant and client	48	35.8	dependent range	no determinant
KF 8	Co-operation-related consultant competence	34	35.8	independent range	determinant
KF 9	Consultant organisation's willingness to co-operate	35	35.8	independent range	determinant
KF 10	Impact of environmental conditions on consultant organisation	12	35.8	independent range	determinant
KF 20	Co-operation intensity	45	35.8	dependent range	no determinant
KF-A	Consultant team homogeneity	18	35.8	independent range	determinant

In concrete terms, the management consultant subsystem in practice is described by means of the following system elements:

- Person-related consultant competence (KF3).
- Consultant's personality structure (KF4).
- Consultant's experience in consulting (KF5).
- Co-operation-related consultant competence (KF8).
- Consultant organisation's willingness to co-operate (KF9).
- Impact of environmental conditions on consultant's organisation (KF10).
- Consultant team homogeneity (KF-A).

After calculating statistically the determinants of the management consulting subsystem on the basis of the expert survey results, the author shall in the following section also examine the independent key factors (determinants) of the astrological consultant subsystem empirically validated.

7.3.3.6 Analysis Results Regarding the Practical Relevance of the Interrelations of System Relevant Key Factors of the Astrological Business Consultant Subsystem

The following Table 45 shall give a summary of the findings from the expert survey regarding the influence intensities in terms of the astrological business consultant subsystem. All statistically determined survey indicators are reproduced in more detail in a table in Annex 12. As described in the preceding Section 7.3.3.5, also in this section the author aims to find the positions of the key factors of the astrological business consultant subsystem, validated by practice, from which its dependent or independent character can be derived. In order to identify the position of the key factor within the system, the passive value of the influence intensity, representing its influenceability, shall be used as statistical factor.

Table 45: Assessment of key factors influenceability within the astrological business consultant subsystem (source: own depiction).

The Astrological Business Consultant subsystem		
Code	**Key factor name**	**Empirically determined passive values**
KF 1	Consultant's possibility of influence upon problem-solving	48
KF 3	Person-related consultant competence	29
KF 4	Consultant's personality structure	23
KF 5	Consultant's experience in consulting	39
KF 6	Consultant workshare	37
KF 7	Coinciding focus of perception of consulting objective by both consultant and client	36
KF 8	Co-operation-related consultant competence	30
KF 9	Consultant organisation's willingness to co-operate	27
KF 10	Impact of environmental conditions on consultant organisation	2
KF 20	Co-operation intensity	40

After the results from the expert survey had been transferred into an adjacency matrix first and then into a scatter diagram (see Annex 14), it was possible to visualise the positions of the key factors of the astrological business consultant subsystem. This step facilitates the detection of whether the key factor lies in the dependent or the independent range of the astrological business consulting system and thus can be identified as an independent element of the astrological business consultant subsystem. In order to establish the determinants of the astrological business consultant subsystem (the independent key factors), the author shall in analogy also proceed in the same way of statistical calculation as in Section 6.3. There, the determinants of the theoretically developed astrological business consultant subsystem were established on the basis of mathematical statistics:

- **Calculation in absolute values:**

As a result of the empirical investigation 30 summands emerge in the adjacency matrix as resulting column sum values (passive sum = influenceability of key factors).

Viewed in absolute terms there is a uniform distribution with regard to the 4 possible results (assessment levels 0-3). Their arithmetic mean (m), variance (Var) and standard variation (S) may be calculated from the series of respective results considered:

Absolute:

Arithmetic mean (m) = (0+1+2+3)/4 = 1.5
Variance (Var) = [(0-1.5)^2 + (1-1.5)^2+(2-1.5)^2+(3-1.5)^2]/4 = 5/4 = 1.25
Standard variation (S) = square root (Var).

Transference to the sum of 30 values (30 system-relevant key factors) is realised by:

m(sum) = 30 * m
Var(sum) = 30*Var
S(sum) = square root (Var(sum)).

Regarding the standard normal distribution (m=0, S=1) the following value is obtained:

1 % of values =< -2.33

From this threshold value, now the position of the line for a significant separation into an independent and a dependent range within the astrological consulting system results as:
m(sum) – 2.33*S(sum) (alpha = 1%, statistical certainty =99%).

With an absolute view, the following calculus results:

m(sum) = 45
Var(sum) = 30*1.25 = 37.5
S(sum) = 6.12.

- **Calculation of the borderline on the x axis at 1% statistical certainty:**

Determination of the borderline position between the independent and dependent scatter diagram ranges of the management consulting system at 1% certainty:

Separation at 1% certainty = 45 – (2.33*6.12) = 30.7.

With a borderline value of 30.7 (at 1% certainty) the following key factors result as lying within the "independent" range of the astrological business consulting system: KF3, KF4, KF8, KF9 und KF10.

As a conclusion from the analysis of the expert survey, the author can now state that, with a 1% error probability, the key factors

KF3, KF4, KF8, KF9 und KF10.

represent the management consultant subsystem and reproduce its independent determining factors (determinants).

Table 46: Determinants of the validated astrological business consultant subsystem (source: own depiction).

The Astrological Business Consultant subsystem					
Code	Key Factor Name	Empirically determined passive values	'Independent range' of the Astrological Business Consulting System at 1% certainty (borderline value)	Key factor's position in the Astrological Business Consulting System	Determinant of the Astrological Business Consulting System
KF 1	Consultant's possibility of influence upon problem-solving	48	30.7	dependent range	no determinant
KF 3	Person-related consultant competence	29	30.7	independent range	determinant
KF 4	Consultant's personality structure	23	30.7	independent range	determinant
KF 5	Consultant's experience in consulting	39	30.7	dependent range	no determinant
KF 6	Consultant workshare	37	30.7	dependent range	no determinant
KF 7	Coinciding focus of perception of consulting objective by both consultant and client	36	30.7	dependent range	no determinant
KF 8	Co operation related consultant competence	30	30.7	independent range	determinant
KF 9	Consultant organisation's willingness to co-operate	27	30.7	independent range	determinant
KF 10	Impact of environmental conditions on consultant organisation	2	30.7	independent range	determinant
KF 20	Co operation intensity	40	30.7	dependent range	no determinant

The astrological business consultant subsystem in practice is described by means of the following system elements:

- Person-related consultant competence (KF3).
- Consultant's personality structure (KF4).
- Co-operation-related consultant competence (KF8).
- The willingness of the consultant organisation to co-operate (KF9).
- Impact of environmental conditions on consultant's organisation (KF10).

After the determinants of the astrological business consulting subsystem and that of the management consulting subsystem have been calculated on the basis of the expert survey results, the author shall in the following section compare each of the two system models, that is between the data theoretically derived from literature and that empirically collected.

7.4 Comparison between the Model Theoretically Developed and the Empirical Data

The comparison of the theoretical model (derived from the literature) and the empirical data shall be applied to both systems, the management consulting system and the astrological business consulting system. Since the two models were theoretically developed in terms of all system-relevant key factors of each of the systems on the one hand and, on the other, with regard to the independent key factors of the subsystems management consultant and astrological business consultant, the comparison between the theoretical and the empirical data shall reflect this process of development.

7.4.1 Management Consulting

With regard to the system of management consulting, the following applies:

(A) The system of management consulting:

a) In respect of the theoretical model of management consulting system:

The system of management consulting consists of 32 system-relevant key factors which have been theoretically derived from the relevant literature.

b) In respect of the empirical model of management consulting:

All 32 system-relevant key factors of the theoretical model of management consulting were empirically validated as system-relevant key factors. In addition, the expert survey produced two further system-relevant key factors which were initially not part of the theoretical model of management consulting and which were subsequently included in the management consulting system:

(1) For one part, the system element "consultant team homogeneity", considered to be essential for the management consultant subsystem especially by the management consultants group. As a justification, it was argued that the increasingly complex and manifold consulting tasks can currently only be solved successfully with a homogeneous team of consultants. Thus, the consulting team's composition and/or homogeneity are of decisive importance for the quality of management consulting. The key factor "consultant team homogeneity" is hence included as a further system-relevant key factor in the management consultant model of reference as a consequence of the survey result.

(2) Likewise, the key factor "client feedback" identified was included in the management consulting system. This key factor was considered to be a system-relevant element of the management consulting system by a large majority in both groups. Almost coincidentally it was adduced that ongoing client feedback during the consulting process is indispensable for the consulting result and quality.

As a result, the system of management consulting is considered by the practice to consist of 34 system-relevant key factors.

Table 47: Comparison of the theoretical model of management consulting system with its empirical data (source: own depiction).

Management Consulting System		
System-relevant key factors		
Code	**Theoretical Model (derived from literature)**	**Validation through practice**
KF 1	Consultant's possibility of influencing the problem-solving	Empirically validated
KF 2	Consultant's mode of conducting the consultation	Empirically validated
KF 3	Person-related consultant competence	Empirically validated
KF 4	Consultant's personality structure	Empirically validated
KF 5	Consultant's experience in consulting	Empirically validated
KF 6	Consultant's workshare	Empirically validated
KF 7	Coinciding focus of perception of the consulting objective by both consultant and client	Empirically validated
KF 8	Cooperation-related consultant competence	Empirically validated
KF 9	Consultant organisation's willingness to co-operate	Empirically validated
KF 10	Impact of environmental conditions on consultant organisation	Empirically validated
KF 11	Client's willingness to learn and co-operate	Empirically validated
KF 12	Client's consulting capacity	Empirically validated
KF 13	Client's willingness to trust	Empirically validated
KF 14	Client's workshare in consultation	Empirically validated
KF 15	Client's capacity to provide information	Empirically validated
KF 16	Size of client organisation	Empirically validated
KF 17	Client enterprise potentials	Empirically validated
KF 18	Impact of environmental conditions on client organisation	Empirically validated
KF 19	Client organisation's enterprise culture and strategy	Empirically validated
KF 20	Co-operation intensity	Empirically validated
KF 21	Consulting task complexity	Empirically validated
KF 22	Repetition frequency of consulting issue (of consulting problem)	Empirically validated
KF 23	Structuring degree of consulting problem	Empirically validated
KF 24	Use of standardised consulting methods	Empirically validated
KF 25	Use of standardised consulting tools	Empirically validated
KF 26	Use of electronic media and software	Empirically validated
KF 27	Project controlling intensity	Empirically validated
KF 28	Consultant's consulting potential quality	Empirically validated
KF 29	Client's consulting potential quality	Empirically validated
KF 30	Consultant's consulting process quality	Empirically validated
KF 31	Client's consulting process quality	Empirically validated
KF 32	Consulting result quality	Empirically validated
KF-A		Consultant team homogeneity (newly included)
KF-B		Client's feedback

(B) The subsystem of management consultant:

a) In respect of the theoretical model of management consultant subsystem:

The theoretical development of the model of management consulting system included 11 system elements forming the management consultant subsystem. Of these 11 system-relevant key factors, 6 key factors were found to be independent of the behaviour of the other system-relevant key factors and were thus identified as determinants of the management consultant subsystem. Hence, 6 system-relevant key factors constitute the management consultant subsystem.

b) In respect of the empirical model of management consultant subsystem:

All 11 key factors of the management consultant subsystem were empirically validated as being system-relevant for the management consultant subsystem. The expert survey additionally produced 1 further system-relevant key factor for the management consultant subsystem. Upon the basis of the empirical data of the expert survey, this key factor was analysed to be independent of the behaviour of the other system-relevant key factors and was thus identified as an additional determinant of the management consultant subsystem.

As a result, the management consultant subsystem is considered by the practice to consist of 12 system-relevant key factors, of which 7 system-relevant key factors were identified as determinants of the management consultant subsystem. The individual results from the expert survey with regard to these determinants are as follows:

- Consultant Competence System Element (KF3)

This element was identified as a system-relevant and independent key factor of the management consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms this theoretical estimation. The consultant competence key factor (KF3) may thus be considered to be a system-relevant and independent element of the management consultant subsystem.

- Consultant Personality Structure System Element (KF4)

This element was identified as a system-relevant and independent key factor of the management consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms the consultant personality structure key factor (KF4) as a system-relevant and independent element of the management consultant subsystem.

- Consultant Experience System Element (KF5)

This element was identified as a system-relevant and independent key factor of the management consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms this theoretical estimation. The consultant experience key factor (KF5) may thus be considered to be a system-relevant and independent element of the management consultant subsystem.

- Co-operation-related Consultant Experience System Element (KF8)

This element was identified as a system-relevant and independent key factor of the management consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms the co-operation-related consultant experience key factor (KF8) as a system-relevant and independent element of the management consultant subsystem.

- Consultant Organisation Willingness to Co-operate System Element (KF9)

This element was identified as a system-relevant and independent key factor of the management consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms this theoretical estimation. The consultant organisation willingness to co-operate key factor (KF9) may thus be considered to be a system-relevant and independent element of the management consultant subsystem.

- Environmental Influence Upon Consultant Organisation System Element (KF10)

This element was identified as a system-relevant and independent key factor of the management consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms the environmental influence upon consultant organisation key factor (KF10) as a system-relevant and independent element of the management consultant subsystem.

- Consultant Team Homogeneity System Element (KF-A)

Regarding the theoretical development of the system model of management consulting, this element was considered to be neither an element of the system nor system-relevant. The primary data collection revealed this element as being a system-relevant key factor of the management consultant subsystem. The subsequent analysis then identified the key factor 'consultant team homogeneity (KF-A)' as an additional determinant of the management consultant subsystem which is newly included in the management consultant subsystem.

In result, after the empirical validation, the management consultant subsystem consists of 7 independent and 5 dependent key factors. While the dependent key factors may change in number and structure within the management consulting system according to the consulting situation, the independent key factors remain unchanged or largely unchanged even in different consulting situations. Consequently they characterise (determine) the management consultant subsystem.

Table 48: Comparison of the theoretical model of management consultant subsystem with its empirical data (source: own depiction).

Management Consultant subsystem			
Code	**System-relevant key factors**	**Determinants (independent key factor) of the Theoretical Model**	**Determinants (independent key factor) empirically validated**
KF 1	Consultant's possibility of influence upon problem-solving	Dependent key factor	Dependent key factor
KF 2	Consultant's mode of conducting the consultation	Dependent key factor	Dependent key factor
KF 3	Person-related consultant competence	Determinant (independent key factor)	Determinant (independent key factor)
KF 4	Consultant's personality structure	Determinant (independent key factor)	Determinant (independent key factor)
KF 5	Consultant's experience in consulting	Determinant (independent key factor)	Determinant (independent key factor)
KF 6	Consultant workshare	Dependent key factor	Dependent key factor
KF 7	Coinciding focus of perception of consulting objective by both consultant and client	Dependent key factor	Dependent key factor
KF 8	Co-operation-related consultant competence	Determinant (independent key factor)	Determinant (independent key factor)
KF 9	Consultant organisation's willingness to co-operate	Determinant (independent key factor)	Determinant (independent key factor)
KF 10	Impact of environmental conditions on consultant organisation	Determinant (independent key factor)	Determinant (independent key factor)
KF 20	Co-operation intensity	Dependent key factor	Dependent key factor
KF-A	Consultant team homogeneity	-	Determinant (independent key factor)

In the following section the theoretical model system of astrological business consulting shall be compared with its empirical data.

7.4.2 Astrological Business Consulting

Against the background of the introductory statement under Section 7.4, the same procedure of comparison shall apply also here:

With regard to the system of astrological business consulting:

(A) The system of astrological business consulting:

a) In respect of the theoretical model of astrological business consulting:

The system of astrological business consulting consists of 32 system-relevant key factors which have has been theoretically derived from the relevant literature.

b) In respect of the empirical model of astrological business consulting:

(1) Out of the 32 key factors theoretically developed from the secondary data collection, three key factors were not confirmed and were therefore excluded from the astrological business consulting system:

- Key factor 2 (consultant's mode of conducting the consultation).
- Key factor 16 (the client's social status, his / her / its economic importance).
- Key factor 27 (the intensity of the project controlling).

The outcome of the empirical procedure of the system of astrological business consulting is that, out of 32 system elements provided in the survey, 29 system elements have been validated as system-relevant key factors of the astrological business consulting system.

(2) The key factor newly included in the system and regarded as being qualified for the astrological business consulting system is:

- Key factor B: (client's feedback).

  This key factor was considered to be a system-relevant element of the management consulting system by a large majority in both groups. Almost coincidentally it was adduced that ongoing client feedback during the consulting process is indispensable for the consulting result and quality.

As a result, the system of astrological business consulting is considered by the practice to consist of 30 system-relevant key factors.

Table 49: Comparison of the theoretical model of astrological business consulting system with its empirical data (source: own depiction).

Astrological Business Consulting System		
System-relevant key factors		
Code	**Theoretical Model (derived from literature)**	**Validation through practice**
KF 1	Consultant's possibility of influencing the problem-solving	Empirically validated
KF 2	Consultant's mode of conducting the consultation	not confirmed
KF 3	Person-related consultant competence	Empirically validated
KF 4	Consultant's personality structure	Empirically validated
KF 5	Consultant's experience in consulting	Empirically validated
KF 6	Consultant's workshare	Empirically validated
KF 7	Coinciding focus of perception of the consulting objective by both consultant and client	Empirically validated
KF 8	Cooperation-related consultant competence	Empirically validated
KF 9	Consultant organisation's willingness to co-operate	Empirically validated
KF 10	Impact of environmental conditions on consultant organisation	Empirically validated
KF 11	Client's willingness to learn and co-operate	Empirically validated
KF 12	Client's consulting capacity	Empirically validated
KF 13	Client's willingness to trust	Empirically validated
KF 14	Client's workshare in consultation	Empirically validated
KF 15	Client's capacity to provide information	Empirically validated
KF 16	Size of client organisation	not confirmed
KF 17	Client enterprise potentials	Empirically validated
KF 18	Impact of environmental conditions on client organisation	Empirically validated
KF 19	Client organisation's enterprise culture and strategy	Empirically validated
KF 20	Co-operation intensity	Empirically validated
KF 21	Consulting task complexity	Empirically validated
KF 22	Repetition frequency of consulting issue (of consulting problem)	Empirically validated
KF 23	Structuring degree of consulting problem	Empirically validated
KF 24	Use of standardised consulting methods	Empirically validated
KF 25	Use of standardised consulting tools	Empirically validated
KF 26	Use of electronic media and software	Empirically validated
KF 27	Project controlling intensity	not confirmed
KF 28	Consultant's consulting potential quality	Empirically validated
KF 29	Client's consulting potential quality	Empirically validated
KF 30	Consultant's consulting process quality	Empirically validated
KF 31	Client's consulting process quality	Empirically validated
KF 32	Consulting result quality	Empirically validated
KF-B		Client's feedback (newly included)

(B) The subsystem of astrological business consultant:

a) In respect of the theoretical model of astrological business consultant subsystem:

The theoretical development of the system model of astrological business consulting included 11 system elements forming the astrological business consultant subsystem. Of these 11 system-relevant key factors, 6 key factors were found to be independent of the behaviour of the other system-relevant key factors and were thus identified as determinants of the astrological business consultant subsystem. Hence, 6 system-relevant key factors constitute the management consultant subsystem.

b) In respect of the empirical model of astrological business consultant subsystem:

The practice validated 10 key factors as being system-relevant for the astrological business consultant subsystem. The expert survey did not confirm key factor 2 (consultant's mode of conducting the consultation).

As a result, the astrological business consultant subsystem is considered by the practice to consist of 10 system-relevant key factors, of which 5 system-relevant key factors were identified as determinants of the astrological business consultant subsystem. The individual results from the expert survey with regard to these determinants are as follows:

- Consultant Competence System Element (KF3)

This element was identified as a system-relevant and independent key factor of the astrological consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms this theoretical estimation. The consultant competence key factor (KF3) may thus be considered to be a system-relevant and independent element of the management consultant subsystem.

- Consultant Personality Structure System Element (KF4)

This element was identified as a system-relevant and independent key factor of the astrological consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms the consultant personality structure key factor (KF4) as a system-relevant and independent element of the management consultant subsystem.

- Co-operation-related Consultant Experience System Element (KF8)

This element was identified as a system-relevant and independent key factor of the astrological consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms the co-operation-related consultant experience key factor (KF8) as a system-relevant and independent element of the management consultant subsystem.

- Consultant Organisation Willingness to Co-operate System Element (KF9)

This element was identified as a system-relevant and independent key factor of the astrological consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms this theoretical estimation. The consultant organisation willingness to co-operate key factor (KF9) may thus be considered to be a system-relevant and independent element of the management consultant subsystem.

- Environmental Influence Upon Consultant Organisation System Element (KF10)

This element was identified as a system-relevant and independent key factor of the astrological consultant subsystem, based on theoretical estimations and investigation reports in the literature. Practice confirms the environmental influence upon consultant organisation key factor (KF10) as a system-relevant and independent element of the management consultant subsystem.

In result, after the validation, the astrological business consultant subsystem consists of 5 independent and 7 dependent key factors. While the dependent key factors might change in number and structure within the management consulting system according to the consulting situation, the independent key factors remain unchanged or largely unchanged even in different consulting situations. Consequently they characterise (determine) the astrological business consultant subsystem.

Table 50: Comparison of the theoretical model of astrological business consultant subsystem with its empirical data (source: own depiction).

Astrological Business Consultant subsystem			
Code	**System-relevant key factors**	**Determinants (independent key factor) of the Theoretical Model**	**Determinants (independent key factor) empirically validated**
KF 1	Consultant's possibility of influence upon problem-solving	Dependent key factor	Dependent key factor
KF 2	Consultant's mode of conducting the consultation	Dependent key factor	-
KF 3	Person-related consultant competence	Determinant (independent key factor)	Determinant (independent key factor)
KF 4	Consultant's personality structure	Determinant (independent key factor)	Determinant (independent key factor)
KF 5	Consultant's experience in consulting	Determinant (independent key factor)	Dependent key factor
KF 6	Consultant workshare	Dependent key factor	Dependent key factor
KF 7	Coinciding focus of perception of consulting objective by both consultant and client	Dependent key factor	Dependent key factor
KF 8	Co-operation-related consultant competence	Determinant (independent key factor)	Determinant (independent key factor)
KF 9	Consultant organisation's willingness to co-operate	Determinant (independent key factor)	Determinant (independent key factor)
KF 10	Impact of environmental conditions on consultant organisation	Determinant (independent key factor)	Determinant (independent key factor)
KF 20	Co-operation intensity	Dependent key factor	Dependent key factor

In the following section, the two system models emerging from the empirical validation shall be compared with each other.

7.5 Confronting the Empirically Validated Models with each other, Astrological Business Consulting and Management Consulting

Since no generally accepted definition of management consulting and astrological business consulting from a system-oriented perspective was found in literature, the author first developed a referential definition of management consulting and adopted this definition for the concept of astrological business consulting. According to this definition of reference, 'the system of management consulting is conceived as a service, under which a consultant system and a client system enter a commitment to co-operate within a project and towards the objective of analysing the client system and finding a solution for it'. These two subsystems are related to each other by the process of consulting (subsystem).

It is the object of this thesis to compare the system of astrological business consulting with that of management consulting. In this context the author uses the consultancy concept of management consulting as the referential concept of consulting in the area of business consultancy. In each of the two consulting systems, both the 'client' subsystem as well as the 'process' subsystem are interchangeable from one system into the other without causing any modification of the structure and behaviour of the system. Hence, to confront the two systems with each other, the author regarded as necessary the mere comparison of the determinants of the astrological business consultant subsystem with those of the management consultant subsystem. The following comparison therefore refers to the two consultant subsystems, which are established by their independent key factors (determinants).

A) The subsystem of management consultant

The empirical validation of the theoretically derived model of the management consultant subsystem indicated that the model of management consultant consists of a total of seven determinants. The experts confirmed all six independent system elements (determinants KF3, KF4, KF5, KF8, KF9, KF10) as derived from the literature and diverse background talks. Through practice, an additional independent system element (KF-A) was identified as being a determinant of the subsystem.

Concretely, the subsystem of management consultant in practice is described by means of the following system elements:

- Person-related consultant competence (KF3).
- Consultant's personality structure (KF4).
- Consultant's experience in consulting (KF5).
- Co-operation-related consultant competence (KF8).
- Consultant organisation's willingness to co-operate (KF9).
- Impact of environmental conditions on consultant's organisation (KF10).
- Consultant team homogeneity (KF-A).

B) The subsystem of astrological business consultant

Practical validation of the theoretically derived model of subsystem of astrological business consultant indicated that this model consists of a total of five determinants. The total of independent system elements (six determinants) as originally derived from the literature and diverse background talks were not confirmed by the practice. The experts confirmed key factor KF3, KF4, KF8, KF9, KF10 as determinants of the astrological business consultant subsystem, but not key factor KF5 (consultant's experience in consulting).

The astrological business consultant subsystem in practice is described by means of the following system elements:

- Person-related consultant competence (KF3).
- Consultant's personality structure (KF4).
- Co-operation-related consultant competence (KF8).
- Consultant organisation's willingness to co-operate (KF9).
- Impact of environmental conditions on consultant's organisation (KF10).

C) Confronting the empirically validated subsystems with each other: Astrological Business Consulting and Management Consulting

When confronting the empirically validated determinants of the astrological consultant subsystem with that of the management consultant subsystem, it will be obvious that the astrological business consultant subsystem does not reflect the same structure of determinants as is the case with the subsystem of management consultant. The result of this confrontation is displayed in Table 50. It shows that practice defines and/or describes the two consultant subsystems differently, and as a result, the systems of management consulting und astrological business consulting. The outcome of this confrontation answers the research question.

(1) The practice considered the management consultant subsystem to consist of 7 determinants, whereas the empirical procedure produced 5 determinants as being relevant for the astrological business subsystem. Out of it, it is incidental that the astrological business consulting system does not correspond with that of the management consulting system. The author will therefore strictly have to conclude that from a systems-theoretical perspective, as compared to the referential concept of management consulting, the concept of astrological business consulting is not an applicable and hence also not an effective and valuable consulting approach in the area of business consulting.

(2) In view of the structure of the determinants of the two subsystems in question, it also appears that the presence of key factor 'Consultant's experience in consulting (KF5)' and 'Consultant team homogeneity (KF-A)' is seen as being decisive by the practice when consultancy activities are conducted in the area of business consulting. But then, in the author's view, there are subjects of business consulting where these two determinants are dispensable.

As an example, the author shall mention personnel recruitment: enterprises establish so-called assessments for the selection of suitable applicants, which in the context of personality tests seek to find out the applicants' personality structure and subsequently choose the person who apparently best suits the respective activity. In these situational cases, astrological business consulting seems to be suitable for use as a consultancy concept in the area of business consulting.

(3) It might also be argued from the preceding confrontation that an "added value" of astrological consulting in the area of business consulting may be spotted only where management consulting for its part is beyond its "possibilities". The increasingly frequent accounts of failed consulting projects (e.g. Smith 2001; Pries and Stone 2004; Warren 2004; Appelbaum and Steed 2005) might give reason to consider alternative consultancy concepts also in the area of business consulting. As Reed (1989, p.176) remarks in his statement on viewing management from a sociological perspective, conventional consultancy concepts such as management consulting have reached their limits. To Reed (1989, p.177), an answer to this situation is the development of perspectives which conceive alternative management consultancy concepts as a set of diverse and loosely interrelated social practices. In this context astrological business consulting may be seen as constituting one of these alternative consultancy concepts, especially in areas of application which cannot be sufficiently covered with conventional business consulting tools, for example, around the area of human resources.

Table 51: Confrontation of the structure of the determinants of the management consultant subsystem with the structure of the determinants of the astrological business consultant subsystem (source: own depiction).

The Management Consultant subsystem			The Astrological Business Consultant subsystem		
Code	**System-relevant key factor**	**Determinant (independent key factor)**	**Code**	**System-relevant key factor**	**Determinant (independent key factor)**
KF 3	Person-related consultant competence	Independent key factor (determinant)	KF 3	Person-related consultant competence	Independent key factor (determinant)
KF 4	Consultant's personality structure	Independent key factor (determinant)	KF 4	Consultant's personality structure	Independent key factor (determinant)
KF 5	Consultant's experience in consulting	Independent key factor (determinant)	KF 5	not confirmed as determinant through practice	
KF 8	Co-operation-related consultant competence	Independent key factor (determinant)	KF 8	Co-operation-related consultant competence	Independent key factor (determinant)
KF 9	Consultant organisation's willingness to co-operate	Independent key factor (determinant)	KF 9	Consultant organisation's willingness to co-operate	Independent key factor (determinant)
KF 10	Impact of environmental conditions on consultant organisation	Independent key factor (determinant)	KF 10	Impact of environmental conditions on consultant organisation	Independent key factor (determinant)
KF-A	Consultant team homogeneity	Independent key factor (determinant)	KF-A	not confirmed as system-relevant key factor through practice	

7.6 Summary

The result from the primary data collection showed that practice defines and/or describes the two systems of management consulting und astrological business consulting differently. From a systems-oriented perspective the author may therefore conclude that the concept of astrological business consulting is not an applicable consultancy approach in the area of business consulting:

After analysing the practical system relevance of the (general) key factors of the two theoretical models and the interrelations of the system-relevant key factors of the consultant subsystems, the author could establish the systems of management consulting and astrological consulting, both empirically validated. The comparison between the theoretical model (derived from the literature) and its empirical data with regard of each of the systems showed differences between the theoretical data and the empirical findings.

After comparing the theoretical data with its empirical findings, the author confronted the empirical model of astrological business consulting with the empirical model of management consulting, and as a consequence the system of astrological business consulting with the system of management consulting. The confrontation showed from a systems-oriented perspective that the concept of astrological business consulting is <u>not</u> an applicable consultancy approach in the area of business consulting.

Chapter 8: Discussion of Findings and Contributions to Knowledge

8.1 Findings Regarding the Research Question

The research question which this thesis seeks to answer is:

> Can astrological consulting be identified as an applicable consulting approach in the area of business consulting?

In accordance with the research question, the objective of this thesis was to examine whether astrological business consulting can be identified as an applicable consultancy concept in the area of business consulting. In order to be able to examine this question, the research object astrological business consulting was reproduced from the systems-theoretical perspective as a socio-technical system and compared with the socio-technical system management consulting. Both literature and practice consider management consulting as an applicable, effective and valuable consulting concept in the area of business consulting.

Both the management consulting system and the astrological business consulting system can be divided into the dimensions (subsystems): consultant, client and process. For the investigation in the context of the research question, it was sufficient to examine the system-relevant key factors of the management consulting system and the astrological consulting system on the one hand and, on the other, to identify the independent system-relevant key factors (determinants) of the two consultant subsystems. For this purpose, based on theory, the determinants of the management consultant und astrological consultant subsystems were statistically and practically validated.

The author was able to prove that the determinants of the astrological business subsystem only partially correspond to those of the management consultant subsystem both with regard to their number and their content. As a consequence of the confrontation of the determinants the author could conclude that the concept of astrological business consulting is not an applicable consultancy approach in the area of business consulting. Concretely:

a) Practical validation of the theoretically derived management consultant model established that this model consists of a total of seven determinants. The experts confirmed all six independent system elements (determinants) as derived from the literature and diverse background talks. Through practice, one further independent system element (determinant) was identified. The empirically validated determinants of the management consultant subsystem are:

- Person-related consultant competence (KF3).
- Consultant's personality structure (KF4).
- Consultant's experience in consulting (KF5).
- Co-operation-related consultant competence (KF8).
- Consultant organisation's willingness to co-operate (KF9).
- Impact of environmental conditions on consultant's organisation (KF10).
- Consultant team homogeneity (KF-A).

b) Practical validation of the theoretically derived astrological consultant model established that this model consists of a total of five determinants. The six independent system elements (determinants) as originally derived from the literature and diverse background talks were not confirmed by the experts. The empirically validated determinants of the astrological business consultant subsystem are:

- Person-related consultant competence (KF3).
- Consultant's personality structure (KF4).
- Co-operation-related consultant competence (KF8).
- Consultant organisation's willingness to co-operate (KF9).
- Impact of environmental conditions on consultant's organisation (KF10).

c) Confrontation of the determinants of the two empirical validated consultant subsystems with each other resulted in the determinants of the astrological business consultant subsystem only partially corresponding in number and content to those of the management consultant subsystem. This result answers the research question. From this outcome the author has to conclude that:

> From a systems-theoretical perspective, astrological consulting, as compared with management consulting, is not an applicable and hence also not an effective and valuable consulting approach in the area of business consulting.

The result of confrontation of the subsystems' determinants is displayed in Table 52:

Table 52: Confrontation of the structure of the determinants of the management consultant subsystem with the structure of the determinants of the astrological business consultant subsystem (source: own depiction).

The Management Consultant subsystem			The Astrological Business Consultant subsystem		
Code	**System-relevant key factor**	**Determinant (independent key factor)**	**Code**	**System-relevant key factor**	**Determinant (independent key factor)**
KF 3	Person-related consultant competence	Independent key factor (determinant)	KF 3	Person-related consultant competence	Independent key factor (determinant)
KF 4	Consultant's personality structure	Independent key factor (determinant)	KF 4	Consultant's personality structure	Independent key factor (determinant)
KF 5	Consultant's experience in consulting	Independent key factor (determinant)	KF 5	not confirmed as determinant through practice	
KF 8	Co-operation-related consultant competence	Independent key factor (determinant)	KF 8	Co-operation-related consultant competence	Independent key factor (determinant)
KF 9	Consultant organisation's willingness to co-operate	Independent key factor (determinant)	KF 9	Consultant organisation's willingness to co-operate	Independent key factor (determinant)
KF 10	Impact of environmental conditions on consultant organisation	Independent key factor (determinant)	KF 10	Impact of environmental conditions on consultant organisation	Independent key factor (determinant)
KF-A	Consultant team homogeneity	Independent key factor (determinant)	KF-A	not confirmed as system-relevant key factor through practice	

Against this background, an "added value" of astrological consulting can be spotted in the author's view only where management consulting for its part is beyond its "possibilities". In this context, however, areas of application might emerge for astrological consulting, which cannot be sufficiently covered with conventional management consulting tools. As an example, we shall only mention personnel recruitment: enterprises establish so-called assessments for the selection of suitable applicants, which in the context of personality tests, seek to find out the applicants' personality structure and subsequently choose the person who apparently best suits the respective activity. Provided astrology itself is not questioned, such an objective can be achieved more comprehensively and accurately with astrology.

Therefore, in the author's opinion, astrological consulting is a useful complement for management consulting. Nonetheless, astrological consulting will never be able to replace management consultancy, neither fully nor partially.

In the following section, the author refers to findings regarding the research aims which were derived from the research question and which were formulated in Chapter 1.

8.2 Findings Regarding the Research Aims

In Chapter 1, the following aims of the investigation were formulated:

1. Development of a systemic understanding of management consulting and astrological consulting including considerations of quality and complexity.

2. Providing a conceptual consultancy model suitable for application in the area of business consulting, both with regard to an alternative consultancy concept and a traditional consultancy concept.

3. Presentation of an appropriate procedure enabling a comparison between consultancy concepts.

a) As far as the first aim of the investigation mentioned above is concerned, by developing the two system models of consulting the author presented a systematic, clear and concise documentation and visualisation of management and astrological consulting, based on the domain of systems thinking. In applying systemic thinking, two consulting concepts were developed taking into consideration the two dimensions of quality and complexity. The consulting models each comprise a detailed requirements catalogue to evaluate the structure and complexity of the system. Also this requirements catalogue facilitates the evaluation of quality in consulting.

b) In respect of the second aim of this investigation, the thesis provides the conceptual model both for management consulting as a traditional consultancy concept and for astrological consulting as an alternative consultancy approach in the area of business consulting. This conceptual development allows for a more holistic representation and/or explanation of both consultancy concepts and thus contributes to the standardisation of terms, definitions and activities in management and astrological consulting, as employed in the area of business consulting, in order to promote a sector-wide standardised view of the systemic structure of traditional and alternative consultancy concepts. This standardised view especially provides an instrument for decision-making, if the question of the need for a traditional or alternative consultancy concept to solve business problems is taken into account.

c) It is the third aim of this investigation to present an appropriate procedure making a comparison between consultancy concepts possible. By applying a system-oriented methodology, which for one part uses objectively measurable data and, for another, comprises more mathematically oriented guidelines, the author was able to develop two system models of consulting. Based on the systemic approaches of Vester (1980, 2003) and Gomez&Probst (1999, 2004), which were designed not only to reduce complexity in systems but also to understand systems from a more holistic point of view, a common denominator, performance quality, was chosen to make the comparison of the two consulting concepts possible. The identification of the determinants of both consulting systems then enabled the author to draw up a comparison of the two consulting concepts.

8.3 Contributions to Knowledge and Practice

The contributions of this study offer new directions of investigation and expand the scope of management consultancy and organisation studies. This study will therefore make significant contributions to both theory and practice.

a) Contribution to Knowledge

Based on the research question and the aims of this study, knowledge is gained throughout this research project on a number of different levels. First, the research investigated an alternative consulting concept, namely that of astrological consulting, in the domain of business consultancy. Second, the two consultancy concepts of management consulting and astrological business consulting were formulated by incorporating a very substantial literature review and conducting an empirical validation. Third, the study provided an appropriate procedure as to how consultancy concepts can be identified and compared with each other.

On the theoretical side, this study attempted to develop two consulting concepts as systems in the area of business management, on the one hand management consulting as a traditional consultancy concept, which was used as a reference concept in the area of business consulting, and on the other hand, astrological business consulting as an alternative consulting concept.

Basically, it is believed that firms searching for alternative consulting services can benefit from this research since it demystifies the controversial role of astrological consulting. This research gives another perspective and facilitates a better understanding of consultancy concepts as systems. Although more and more organisations are currently using astrological consultants, there is still a strong scepticism about their efficiency and more importantly, there is still a lack of clarity concerning how the parties involved in the consulting process are linked with each other and what the consultant's and client's role is in the area of business consulting.

In detail, the research contributes to knowledge by

(1) presenting a systemic understanding of management consulting and astrological consulting including considerations of quality and complexity and thus contributing to the standardisation of terms, definitions and activities in management and astrological consulting as employed in the area of business consulting. In this context, the study also promotes a sector-wide standardised view of the systemic structure of traditional and alternative consultancy concepts,

(2) providing a conceptual consultancy model suitable for application in the area of business consulting, both for an alternative consultancy approach such as astrological consulting and for a traditional consultancy concept such as management consulting. These models each define possible criteria dimensions and relate them to each other. This allows classifying evaluation approaches and putting them into context, and

(3) suggesting a technical-oriented procedure by means of which performance quality can be measured and, on the basis of the performance quality measured, consulting concepts can be compared with each other.

b) Contribution to practice

The research also contributes to the development of the practice of business consulting. Potential clients can find in this research not only the resources necessary to develop a sound relationship with their consultants and vice versa, but it may also provide them with a clearer idea about the interactions between the parties involved in the consulting process. Clients as well as consultants can reflect on the results of this research and possibly rethink their approach to working with each other.

After the contribution of this study to knowledge and practice has been presented, the following section shall explain the limitations to this study.

8.4 Limitations to the Study

The present research displays certain limitations. Hence the findings should be considered to be tentative; these very limitations suggest areas for future research:

(1) In global terms, with regard to the procedure of comparing two consultancy concepts, a technically oriented research approach was chosen. Although other, not technically oriented, research approaches might deal with such a subject equally well they were not considered in the present study, given the need to keep the comparison verifiable and manageable within the set framework.

(2) The systematic development of a holistic system model of consultancy concerning the quality of performances in management consulting and astrological business consulting questions an opinion in literature prevalent up to now. It is not individual factors which determine the quality of consulting but rather the complex dynamic interaction of a multiplicity of factors as a whole. The author should state critically that the elements of the system model are successively reduced from many factors to a manageable, relevant set of factors. This reduction is carried out systematically and by using a system-oriented methodology. Nevertheless, by reducing the system elements provided by the literature, the author cannot fully exclude the possibility of the system model being a partially simplified representation of reality. The determination of system elements and interrelations among them is further based upon the current state of research, expert opinions and the author's consulting experience. In consequence, the model must be continuously developed further and modified in case of new findings or falsification of individual relations.

(3) Finally, the empirical validation of the two consulting concepts was based on the Delphi technique, which is generally accepted in scientific research but which provides for a limited number of interviewees (experts), thus restricting the explanatory power of this present study. Even though the experts were chosen carefully in order to match across countries and represent a sample capable of providing different angles to the topic of management consulting and astrological consulting, other potential contributors had to be excluded for economic and physical reasons.

Full inclusion of all management consultants and astrologically active consultants composing the universe was therefore impossible. The empirical validation of the system models could thus only be realised with a limited number of experts. However, literature contains reports which, despite a small number of surveys, deliver good results. Instead of overall truths, the present thesis has revealed the perception of managerial and astrological experts from very specific angles.

8.5 Implications of the Findings in the Context of the Wider Literature

This thesis seeks to contribute to an increased understanding of systems thinking in the area of business consulting and of management research respectively, both at present and for future research. The research question and the research aims were conducted by employing an interpretive, methodological approach of systems thinking, the Networked Thinking concept.

8.5.1 Systems Thinking in Management

It is an objective of the thesis to demonstrate the employment of systems thinking in the area of business consulting and of management research respectively. The two questions and the answers to these mentioned below shall underpin the significance of this objective:

(1) How can the various systems approach(es) in management research be characterised?

- Discourse-oriented, employing interpretative or subjectivist epistemology.
- Focused on ill-structured and complex human-based problem situations.
- Aiming for integration, co-ordination and collaboration.
- Articulated in a 'language of management' rather than a 'systems language'.
- Holistic view on situations and human nature.

(2) Has management research adopted systems thinking and, if so, which parts and to what extent?

- If systems thinking has been adopted, it is mainly in the methodological position of positivist tradition.
- Most management research studies do not explicitly consider Systems Thinking as the theoretical framework for conducting the research.
- Explicit application of Systems Thinking was more common in the early days of the discipline.
- Later developments of theories and methodologies within the domain of Systems Thinking have to a large extent passed unnoticed within management research.

Based on the findings and contribution to research (Chapter 8), there seems to be a widespread view that the application of systems thinking in management research might be purposeful and useful for problem-solving.

Systems thinking from a more holistic perspective as outlined in this thesis reflects some of the intellectual concepts and frameworks which might help us to expand our consciousness to embrace a broader spectrum of reality, recognise the limits to our own thinking and construct more whole ways of perceiving and thinking.

8.5.2 Future Research

A further objective of this thesis is to explore the significance of the position of interpretivist tradition in systems thinking of and with it, an attempt to close the gap between management research and contemporary systems thinking by applying an interpretive approach to 'actors' systems thinking'.

The two questions and the answers to these mentioned below shall underpin the significance of this objective:

(1) Do actors' systems thinking differ, even in a mutual context?

- Yes, this is what the present study indicates.
- More research in varying contexts is needed to further strengthen results.

(2) If so, what implications might this have?

- Regarding data collection and quality, no objectively true image of consulting systems can be obtained.
- 'Negotiated objectivities' may be one way to come closer to more comprehensive pictures.
- Determinist view of social actors is insufficient.
- Management research is perhaps better suited to promote systems debate among stakeholders than to impose expert-based 'best practice' systems designs justified by taken-for-granted rationality.

The credits of the interpretive tradition lie in its ability to work not only with 'systems' per se, but also with the 'thinking'. This is seen to be not possible by applying a methodological approach of the positivist tradition as these methodologies do not consider subjectivities but assume homogeneity in systems thinking.

With regard to the employment of systems thinking in the area of business consulting, the work conducted might be described as being tentative. As pointed out previously, it seems that the application of systems thinking in the discipline of business consulting in some aspects and to some extent is not always so clearly articulated. An interpretive, intradisciplinary study on the topic could probably give recommendations as to how best to approach suitable complex social situations. More studies on the core, which explicitly adopt those identified systems methodologies adhering to the interpretive tradition would also probably prove to be valuable. Also, combinations of different methodologies as urged by the pluralist commitment of Critical Systems Thinking can be a worthwhile effort. Such research studies should not be aimed primarily at building empirically grounded theory, but at continuing to explore the possibilities of application of systems thinking per se. There are various other methodologies and methods of the domain of systems thinking, especially of the interpretive tradition, which might contribute to a better understanding of the 'big picture'.

8.6 Summary

The scope of this research is the largely unexplored field of astrological business consulting. One glance at the practice reveals that the concept of astrological consultancy is steadily gaining significance in the area of business consulting, particularly in the U.S. and Asia. However, there is a striking discrepancy between the scientific relevance of this deriving consulting concept and its scientific processing by the research community, which thus far has paid only little attention to the topic. Therefore this thesis attempted to investigate an alternative consultancy concept, i. e. that of astrological business consulting in the area of business consultancy, within a context of economic sociology. If we support Reed's (1989, pp.6), political and/or critical perspective on management, then such an investigation appears as necessary and justified.

The choice of the objective can be justified conceptually, empirically in regard of consulting policies and personally:

The conceptual motivation for this investigation is rooted in a more socio-scientific view of the relationship between traditional and alternative consultancy concepts. It addresses an area of particular interest for management studies. While investigations on traditional consultancy concepts can be found relatively frequently in the literature, astrological counselling of enterprises represents an area quite poorly researched within business management studies. In the author's opinion, a further issue of conception is to discuss astrology and how it conceives of consulting from the perspectives of epistemology and social sciences. When looking at the more recent developments in the Western theory of science, such as for example the change from objectivist to subjectivist ways of organising experience, then upon the basis of the oneness of man and nature an epistemological integration of astrology in Western philosophy appears as possible.

An empirical investigation of alternative consulting approaches such as that of astrological business consulting may contribute to more accurate statements regarding the application of alternative consultancy concepts in the economic sector. It is intended to constitute a contribution to research in this area.

As far as consulting policies are concerned, from a practical point of view an additional value of this work is that the consulting process is examined in the context of alternative consulting and its components are described and defined with regard to their impact upon each other and upon the environment. Up to now there have been a series of prejudices concerning astrological business consulting. An objective analysis of this topic may be useful to improve the mutual understanding between the industry and the public. And it is not least those directly involved in consulting who are to benefit from the findings.

Furthermore it is the author's personal motivation to gain more insight into the field of conflict between traditional and alternative consultancy concepts in the area of business consulting. As an internal consultant, who has been working in this area for years, his familiarity with this subject matter enables him to bring the empirical results into context and thus to give the reader an understanding of these questions. Such knowledge may be the basis for further individual development. The realisation of academic activities alongside professional ones appears very attractive personally since it provides the possibility of viewing the object of the investigation from a strongly practice-oriented perspective.

This thesis and the investigation process contained in it are based upon the conception of business administration as an applied social science. Business administration is therefore understood as being a leadership or management theory dealing with the problems of the shaping, control and development of social production systems. Management consulting is, in consequence, conceived of as an object of knowledge in the context of business administration. Upon closer look at the consulting process, it should be noted that this is prone to permanent changes subject to the actors involved in it, the time frame, the consulting object, and the influences exerted upon the consulting process. From a holistic perspective, we might therefore state that consulting can be understood as a dynamic network, in which, given their interrelations, the involved dimension, i. e. consultant, client and consulting process, interact thereby experiencing steady modifications. Given the interwoven condition of these consulting dimensions among each other, they are marked by a high degree of complexity. Against this background, it appears adequate to conceive of consulting organisations and/or processes as complex constructions, i. e. complex systems. The domain of systems thinking as the theoretical framework for this investigation has been considered to be the best way of dealing with the complexity of the concepts of management consulting and astrological consulting.

In order to be able to identify and describe the two consultancy concepts, two methodical procedures from systems-oriented management theory were chosen: On the one hand the Sensitivitätmodell Prof. Vester® (sensitivity model), as developed by Vester (1980,2003). It was used to establish the structure of the system-determining elements (key factors) of the two consulting systems. In order to achieve transparency of the system with regard to the influence of the systems elements among each other, and to reduce the complexity of the system, the author subsequently generated a 'network' of system-determining elements on a holistic basis, based on the systems-oriented approach by Gomez&Probst (1999, 2004) ('networked thinking'), a holistic system-oriented approach to establish transparency in systems, actually a further development of the sensitivity model concept by Vester (1980;2003).

This 'network' then provided information as to the kind and intensity of the interactions of these system elements and ultimately revealed their respective roles within the system. By means of their roles, the author was subsequently able to determine whether the respective system elements act independently of the influence behaviour of the other system elements. A system can be described by means of its independent elements. The mathematical basis for the generation of a "network" was the graph theory. Through this kind of modelling it was possible to show the system structure of both consulting systems in a transparent and comprehensive manner. Then the findings had to be transferred into operational solutions suitable for their application in the consulting practice. Both the systems-oriented procedure by Vester (1980, 2003) and Gomez&Probst (1999, 2004) are approaches inspired by the systems thinking branches of General Systems Theory (GST) and cybernetics; they are not mathematical systems-theoretical derivations.

As mentioned above, within the context of methodical research, modelling was used to develop the two consulting systems. Models can serve to represent, map or reproduce a section of reality or to formulate a design or ideal for a section of reality. For this purpose the two consultancy systems, management consulting and astrological consulting, were conceptually developed as models. From these consultancy systems their respective subsystems, management consultant and astrological consultant, were subsequently derived and likewise developed as models. It is the object of this thesis to compare the system of astrological business consulting with that of management consulting. In this context, the author uses the consultancy concept of management consulting as the referential concept of consulting in the area of business consultancy. In each of the two consulting systems, both the 'client' subsystem as well as the 'process' subsystem are interchangeable from one system into the other without causing any modification of the system's structure and behaviour. Hence, to confront the two systems with each other, the author considered it necessary merely to compare the determinants of the astrological business consultant subsystem with that of the management consultant subsystem.

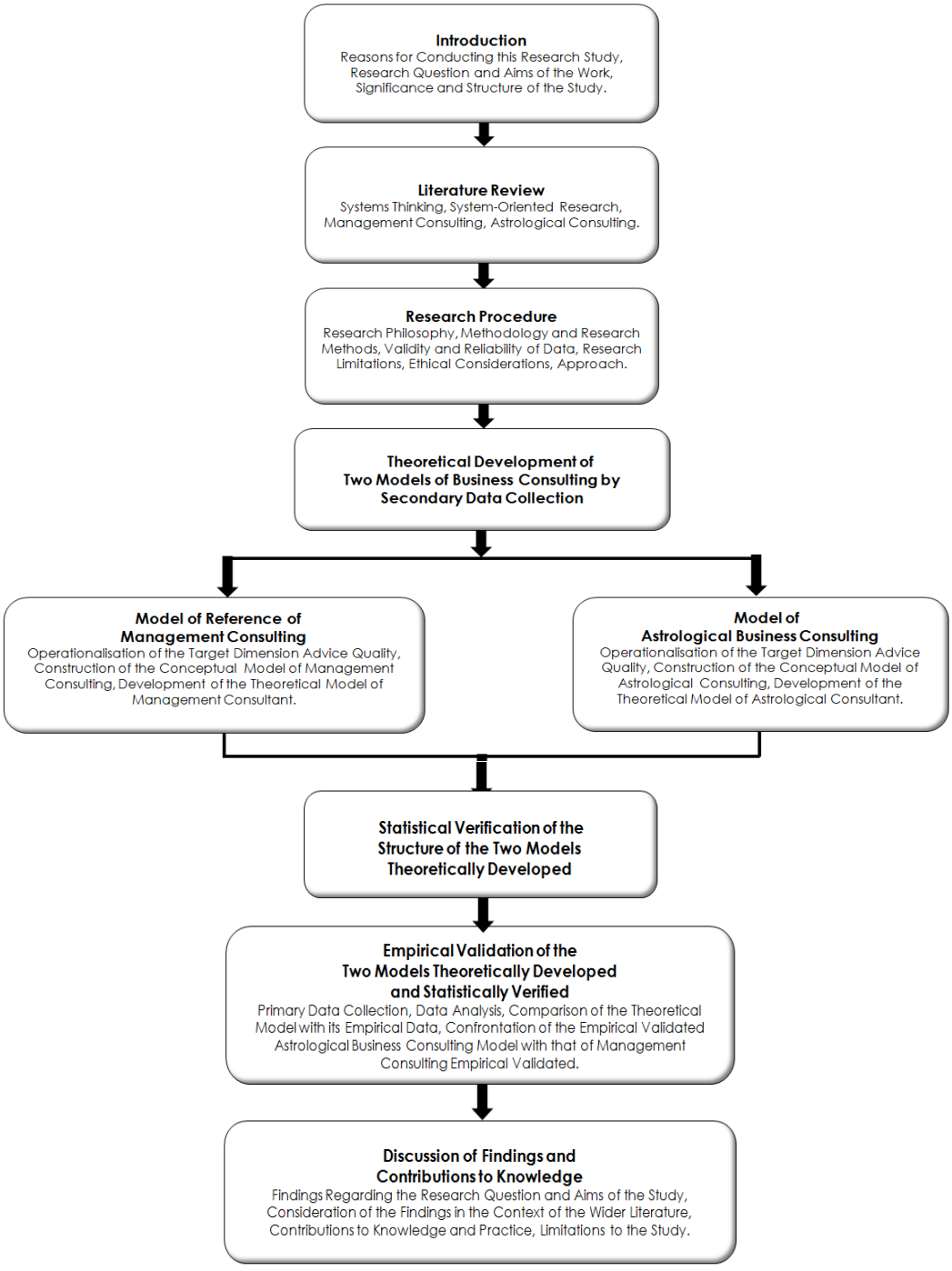
Upon theoretically developing the models of management consulting and astrological business consulting, they were practically validated. The empirical examination provided information as to whether the theoretically derived models can be transferred into the practice of consulting or possibly have to be adapted afterwards. Then the direct confrontation between the management consulting subsystem and the astrological management subsystem was carried out. This aims to provide information regarding the applicability of astrological management consulting in the area of business consulting. If the practically validated astrological business consultant model is identical or at least largely identical to the management consultant model, we might conclude from there that from the perspective of systems thinking astrological management consulting is an applicable and justifiable consultancy concept in the area of business consulting.

The work is composed of eight chapters, which form three main parts. The introduction (Chapter 1) is followed by a chapter (Chapter 2) presenting a literature review of the domain of systems thinking and the concepts of management consulting and astrological consulting. This chapter provides the theoretical frame for the investigation. Subsequently Chapter 3 explains the research procedure, including the philosophy, methodology and methods applied. In Chapters 4 and 5, the system models of management consulting and astrological business consulting and their relative consultant subsystems are developed by collecting secondary data. Chapter 6 statistically verifies the suppositions of Vester (1980, 2003) and Gomez&Probst (1999, 2004) regarding the determination of the independent system elements (key factors). In the following Chapter 7 the theoretical models of management consulting and astrological business consulting are empirically examined through practice. Each of the theoretically developed system models is then compared with its empirical data. Finally, the subsystem of astrological business consultant is confronted with that of the management consultant subsystem, both empirically validated. The author was able to conclude from this whether the astrological business consulting system is identical or largely identical to the management consulting system.

The conclusions connect the thesis back to the introduction and address links for further research. Based on the results obtained, in Chapter 8 the findings with regard to the research question and the research aims are discussed. In this chapter, the contributions to knowledge and practice, the limitations of the study as well as the implications of the findings in the context of a wider literature are presented. Chapter 8 ends with a summary of the study.

The structure of the thesis is schematically represented in the following Figure 53.

Figure 53: Structure of the Thesis



Annex 1: Criteria Matrix (Management Consulting system)

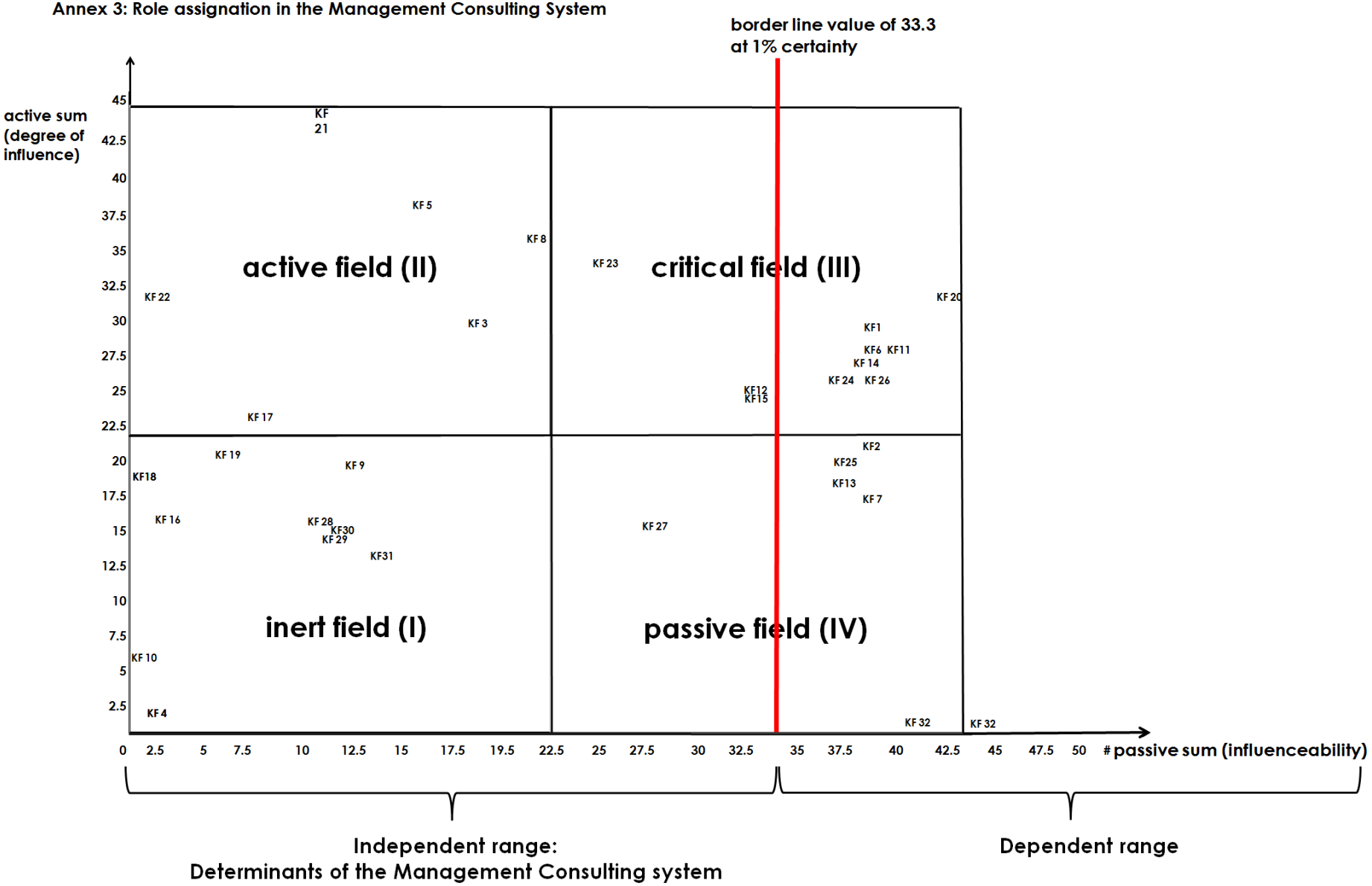
Criteria Matrix (Management Consulting System)	system areas							physical criteria		dynamic criteria				system relation			
	consulting organisation	consultant	client organisation	client	co-operation	content	environment	energy	information	flow variable	structural variable	time dynamics	space dynamics	input	output	internally influenceable	externally influenceable
Consultant perspective																	
Consultant-individual key factors																	
Consultant's possibility of influencing the problem-solving		1			1	1		1	0,5	1	0,5	1	0,5			1	
Consultant's mode of conducting the consultation		1			1	1		1	1	1	1	1	1				
Role repertoire		1			1			1	0,5	0,5	0,5					1	
Person-related consultant competence		1						0,5	1	1	1		0,5			0,5	
Material competence (material / expert knowledge)		1						0,5	1	1	1		0,5			0,5	
Consultant's consulting experience		1							1	1	1		0,5			0,5	
Empathy		1							1	1	1		0,5			0,5	
Tool experience		1							1	1	1		0,5			0,5	
Project management experience		1						1	1	1	1		0,5			0,5	
Personality structure		1						1									
Value competence		1							1	1	1		0,5			0,5	
Social competence		1							1	1	1		0,5			0,5	
Co-operation-related consultant key factors																	
Consultant's workshare	1	0,5			1	1		1		1	1	1	1			1	0,5
Consultant's motivation to contribute to consulting success		1			1			1	1	1	0,5	1	1			0,5	0,5
Co-operation-related consultant competence		1						1	1	1	1	0,5	1			0,5	
Consultant's information-gathering capacity		1							1	1		0,5	1			0,5	
Consultant's problem-solving capacity		1						1	1	0,5	1	0,5	1			0,5	
Consultant's methodical competence		1						1	1	0,5	1	0,5	0,5			0,5	
Coinciding focus of perception of consulting objective by both consultant and client		1		1	1				1	1	1	1	1			1	0,5
Client/consultant risk attitude compatibility	0,5	1			1				1	0,5	0,5	1	1		0,5	1	0,5
Key factors from the consultant organisation perspective																	
Size of consulting firm	1							1		1	1	0,5	0,5				1
Consultant organisation orientation on certain branches	1								1		0,5					1	
Consultant organisation orientation on certain client organisations and/or consulting contents	1										1					1	
Consultant organisation's willingness to co-operate	1	0,5						1	1	1	0,5	0,5	1			1	
Guidelines	1							1	1	1	1					1	
Enterprise policies	1				1			1	1	1			0,5			1	
Consultant organisation's enterprise culture	1	0,5			1			1	1	1			0,5			1	
Price level of consultant performance	1												0,5			1	
Consultant organisation's environmental conditions	1						1			1	1	1	1	1			1
Economic framework conditions	1						1			1	1	1	1	1			1
Competitive framework conditions	1						1			1	1	1	1	1			1
Legal framework conditions	1						1			1	1	1	1	1			1
Technological framework conditions	1						1			1	1	1	1	1			1
Client perspective																	
Client-individual key factors																	
Client's willingness to learn and co-operate			0,5	1	1			1	1	1	1	1	1			1	
Basic attitude toward consulting			0,5	1	1			1		1	1	1	1			0,5	
Client's personality structure				1	1					1	1		1				
Available capacities			1	1				1		1		1	1			0,5	
Client's willingness to provide sufficient resources			1	1	1			1		1	1		1			1	
Client's consulting capacity				1				1		1	1	0,5	1			1	
Expert knowledge				1				1	1	1	1	0,5	1			1	
Knowlegde and experience to deal with consulting performances				1				1	1	1	1	0,5	1			1	
Client's willingness to trust				1					1		1	1	1			1	
Co-operation-related key factors																	
Client's workshare				1	1			1		1	1	1	1			1	
Client's motivation to contribute to consulting success			0,5	1	1			1	1	1	1	0,5	1			0,5	0,5
Client's information-gathering capacity			0,5	1				1	1	1		0,5	1			0,5	
Client's capacity to diagnose and solve problems				1				1	1	1	1	1	1			0,5	
Risk attitude compatibility			0,5	1	1				1	1	0,5	1	1	0,5	0,5	1	0,5
Coinciding focus of perception of consulting objective by both consultant and client			0,5	1		0,5			1	0,5	0,5	0,5	1			0,5	0,5
Consulting process transparency		1		1	1	0,5			1	1		0,5	1			1	
Key factors from the client organisation perspective																	
Size of client organisation			1							1	1						1
Enterprise age			1								1						1
Enterprise branch			1								1						
Legal form			1								1						1
Property relations			1								1						
Client organisations economic situation			1							1	1	0,5					1
Client organisation potentials			1	0,5	1			1	1	1	0,5	0,5	1		1	1	1
Human capital			1	0,5	1			1		1	0,5		1		1	1	1
Technical know-how			1	0,5	1				1	1	0,5	0,5	1		1	1	1
Financial resources			1		1					1	0,5		1		1	1	1
Project prioritisation			1					0,5	0,5	1		0,5	1		1	1	1
Client enterprise's financial restrictions																1	
Client enterprise's environmental conditions			1				1	1	1	1	1	1	1				1
Economic framework conditions			1				1			1	1	1	1	1			1
Competitive framework conditions			1				1	0,5	1	1	1	1	1	1			1
Legal framework conditions			1				1	0,5	1	1	1	1	1	1			1
Technological framework conditions			1				1	0,5	1	1	1	1	1	1			1
Client organisation's enterprise culture and strategy			1	0,5	1				1	1	0,5		1			1	
Consulting process perspective																	
Project duration	1	1	1	1	1	1				1		1	1			1	0,5
Co-operation intensity	1	1	1	1	1	1		0,5	1	1		1	1			1	0,5
Consulting task complexity						1	1	0,5	0,5	1	1	0,5	1			0,5	0,5
Repetition frequency of consulting issue						1											
Structuring degree of consulting problem						1			1	1	1	1	1			1	
Use of standardised consulting methods	0,5	0,5				1		1	1	1	1	0,5	1			1	0,5
Use of standardised consulting tools	0,5	0,5				1		1	1	1	1	0,5	1			1	
Use of electronic media and software	1	1			1												
Project controlling intensity		0,5		0,5	0,5	1			1	1		1	1			1	
Total	**18,5**	**26**	**24**	**21,5**	**26,5**	**12**	**11**	**35**	**45**	**61,5**	**55,5**	**38**	**55**	**10,5**	**6**	**45**	**25,5**

Annex 2: Adjacency Matrix (Management Consulting System)

Adjacency Matrix (Management Consulting system)

		KF1	KF2	KF3	KF4	KF5	KF6	KF7	KF8	KF9	KF10	KF11	KF12	KF13	KF14	KF15	KF16	KF17	KF18	KF19	KF20	KF21	KF22	KF23	KF24	KF25	KF26	KF27	KF28	KF29	KF30	KF31	KF32	**Active sum**	**Passive sum**
		Consultant's possibility of influence upon problem-solving	Consultant mediacy	Person-related consultant competence	Consultant's personality structure	Consultants experience in consulting	Consultant workshare	Coinciding focus of perception of consulting objective by both consultant and client	Co-operation-related consultant competence	Consultant organisation's willingness to co-operate	Impact of environmental conditions on consultant organisation	Client's willingness to learn and co-operate	Client's consulting capacity	Client's willingness to trust	Client workshare	Client's capacity to provide information	Size of client organisation	Client enterprise potentials	Impact of environmental conditions on client' organisation	Client organisation's enterprise culture and strategy	Co-operation intensity	Consulting task complexity	Repetition frequency of consulting issue (cf consulting problem)	Structuring degree of consulting problem	Use of standardised consulting methods	Use of standardised consulting tools	Use of electronic media and software	Project controlling intensity	Consultant's consulting potential quality	Client's consulting potential quality	Consultant's consulting process quality	Client's consulting process quality	Consulting result quality		
KF1	Consultant's possibility of influence upon problem-solving		2	2	0	1	2	1	1	0	0	1	0	1	2	2	0	0	0	0	2	0	0	1	2	2	2	2	1	0	1	0	2	**30**	**38**
KF2	Consultant mediacy	2		1	0	1	2	1	1	0	0	1	0	1	1	2	0	0	0	0	1	0	0	0	1	1	1	1	1	0	0	0	2	**21**	**38**
KF3	Person-related consultant competence	2	2		0	1	1	2	3	0	0	1	0	2	1	1	0	0	0	0	1	0	0	2	2	2	2	1	1	0	1	0	2	**30**	**18**
KF4	Consultant's personality structure	0	0	0		0	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**2**	**2**
KF5	Consultants experience in consulting	2	2	2	1		2	2	3	0	0	3	0	2	1	2	0	0	0	0	2	0	0	2	2	2	2	2	1	0	1	0	2	**38**	**15**
KF6	Consultant workshare	2	2	2	0	2		1	2	0	0	1	0	1	3	1	0	0	0	0	2	0	0	1	1	1	1	1	1	0	1	0	2	**28**	**38**
KF7	Coinciding focus of perception of consulting objective by both consultant and client	0	1	1	0	1	0		1	0	0	1	1	2	1	0	0	0	0	0	2	0	0	0	1	1	1	0	0	0	0	0	3	**17**	**38**
KF8	Co-operation-related consultant competence	2	2	1	1	0	2	2		0	0	2	0	2	2	1	0	0	0	0	3	0	0	2	3	3	3	1	1	0	1	0	2	**36**	**21**
KF9	Consultant organisation's willingness to co-operate	1	1	1	0	0	1	1	1		0	1	0	1	2	1	0	0	0	0	3	0	0	1	1	1	1	1	0	0	0	0	1	**20**	**11**
KF10	Impact of environmental conditions on consultant organisation	1	0	0	0	1	1	1	0	1		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**6**	**0**
KF11	Client's willingness to learn and co-operate	1	2	0	0	0	2	2	0	1	0		3	2	2	2	0	0	0	0	2	0	0	1	1	1	1	1	0	1	0	1	2	**28**	**40**
KF12	Client's consulting capacity	1	1	0	0	0	2	2	0	1	0	3		1	1	2	0	0	0	0	1	0	0	1	1	1	1	1	0	2	0	2	1	**25**	**33**
KF13	Client's willingness to trust	2	2	0	0	0	0	2	0	1	0	2	2		0	2	0	0	0	0	2	0	0	0	1	1	1	0	0	0	0	0	0	**18**	**37**
KF14	Client workshare	2	1	0	0	0	2	2	0	1	0	2	3	1		2	0	0	0	0	2	0	0	1	1	1	1	1	0	1	0	1	2	**27**	**38**
KF15	Client's capacity to provide information	2	1	0	0	0	2	2	0	1	0	2	2	1	1		0	0	0	0	2	0	0	0	1	1	1	1	0	1	0	1	2	**24**	**33**
KF16	Size of client organisation	0	0	0	0	0	0	0	0	0	0	2	2	1	2	1		2	0	1	0	0	0	0	1	1	1	0	0	1	0	1	0	**16**	**2**
KF17	Client enterprise potentials	1	2	0	0	0	1	0	0	0	0	2	2	1	2	1	0		0	1	2	0	0	0	1	1	1	1	0	1	0	1	2	**23**	**6**
KF18	Impact of environmental conditions on client organisation	1	1	0	0	0	1	1	0	1	0	2	2	0	1	0	1	2		2	1	2	1	0	0	0	0	0	0	0	0	0	0	**19**	**0**
KF19	Client organisation's enterprise culture and strategy	0	0	0	0	0	1	0	0	1	0	2	2	0	1	1	1	2	0		2	1	1	0	1	1	1	0	0	1	0	1	1	**21**	**4**
KF20	Co-operation intensity	3	2	1	0	1	2	3	1	1	0	2	2	2	2	2	0	0	0	0		0	0	0	1	1	1	2	0	0	0	0	3	**32**	**43**
KF21	Consulting task complexity	2	3	2	0	2	3	2	3	1	0	2	2	2	2	2	0	0	0	0	1		0	3	2	1	2	2	1	1	1	1	1	**44**	**10**
KF22	Repetition frequency of consulting issue (of consulting problem)	2	2	1	0	1	2	1	1	1	0	1	1	2	2	1	0	0	0	0	1	1		0	2	2	2	1	1	1	1	1	1	**32**	**2**
KF23	Structuring degree of consulting problem	2	2	1	0	1	2	2	1	0	0	1	1	2	2	2	0	0	0	0	1	2	0		2	2	2	1	1	1	1	1	1	**34**	**24**
KF24	Use of standardised consulting methods	2	2	1	0	1	2	1	1	0	0	1	2	1	2	1	0	0	0	0	1	1	0	1		2	2	1	0	0	0	0	1	**26**	**37**
KF25	Use of standardised consulting tools	1	1	0	0	1	1	1	0	0	0	1	1	1	2	1	0	0	0	0	1	1	0	1	1		2	1	0	0	1	0	1	**20**	**37**
KF26	Use of electronic media and software	2	2	0	0	1	2	1	0	0	0	1	2	1	2	1	0	0	0	0	2	1	0	1	2	2		1	0	0	1	0	1	**26**	**38**
KF27	Project controlling intensity	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0	0	0	0	1	1	0	1	2	2	2		0	0	0	0	2	**16**	**27**
KF28	Consultant's consulting potential quality	1	1	1	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	1	1	1	1		0	2	0	1	**16**	**10**
KF29	Client's consulting potential quality	0	0	0	0	0	0	1	0	0	0	1	1	1	0	1	0	0	0	0	1	0	0	1	1	1	1	1	0		0	2	1	**14**	**11**
KF30	Consultant's consulting process quality	1	1	1	0	0	1	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	0		0	1	**15**	**12**
KF31	Client's consulting process quality	0	0	0	0	0	0	1	0	0	0	1	1	1	0	1	0	0	0	0	1	0	0	1	1	1	1	1	0	1	0		1	**13**	**13**
KF32	Consulting result quality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		**1**	**41**
Passive sum		**38**	**38**	**18**	**2**	**15**	**38**	**38**	**21**	**11**	**0**	**40**	**33**	**37**	**38**	**33**	**2**	**6**	**0**	**4**	**43**	**10**	**2**	**24**	**37**	**37**	**38**	**27**	**10**	**11**	**12**	**13**	**41**		
Active sum		**30**	**21**	**30**	**2**	**38**	**28**	**17**	**36**	**20**	**6**	**28**	**25**	**17**	**27**	**24**	**16**	**23**	**19**	**21**	**32**	**44**	**32**	**34**	**26**	**20**	**26**	**16**	**16**	**14**	**15**	**13**	**1**		

Annex 3: Role assignation in the Management Consulting System



Annex 4: Criteria Matrix (Astrological Business Consulting System)

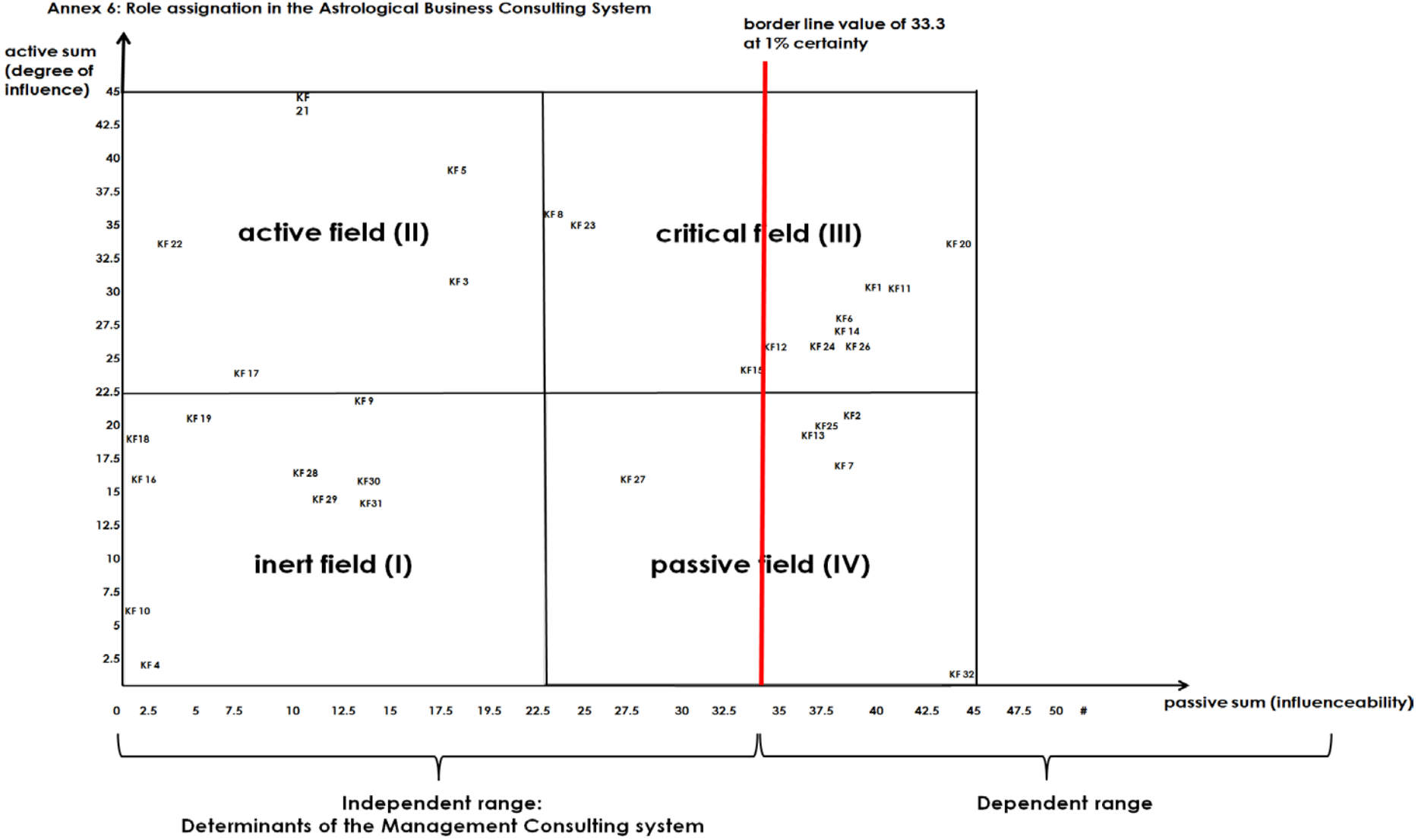
Criteria Matrix (Astrological Business Consulting system)	system areas							physical criteria		dynamic criteria				system relation			
	consulting organisation	consultant	client organisation	client	co-operation	content	environment	energy	information	flow variable	structural variable	time dynamics	space dynamics	input	output	internally influenceable	externally influenceable
Consultant perspective																	
Consultant-individual key factors																	
Consultant's possibility of influence upon problem-solving		1			1	1		1	0,5	1	0,5	1	0,5			1	
Consultant's mode of conducting the consultation		1			1	1		1	1	1	1	1	1			1	
Role repertoire		1			1			1	0,5	0,5	0,5					1	
Person-related consultant competence		1						0,5	1	1	1		0,5			0,5	
Material competence (material / expert knowledge)		1						0,5	1	1	1		0,5			0,5	
Consultant's consulting experience		1							1	1	1		0,5			0,5	
Empathy		1							1	1	1		0,5			0,5	
Tool experience		1							1	1	1		0,5			0,5	
Project management experience		1						1	1	1	1		0,5			0,5	
Personality structure		1						1									
Value competence		1							1	1	1		0,5			0,5	
Social competence		1							1	1	1		0,5			0,5	
Self-reflexion capacity		1							1	1	1		0,5			0,5	
Consultant authenticity		1							0,5	0,5	0,5		0,5			0,5	
Consultant team homeogeneity	0,5	0,5			0,5						0,5					1	
Co-operation-related consultant key factors																	
Consultant's workshare	1	1			1	1		1		1	1	1	1			1	0,5
Consultant's motivation to contribute to consulting success		0,5			1			1	1	1	0,5	1	1			0,5	0,5
Co-operation-related consultant competence		1						1	1	1	1	0,5	1			0,5	
Consultant's information-gathering capacity		1							1	1		0,5	1			0,5	
Consultant's problem-solving capacity		1						1	1	0,5	1	0,5	1			0,5	
Consultant's methodical competence		1						1	1	0,5	1	0,5	0,5			0,5	
Coinciding focus of perception of consulting objective by both consultant and client		1		1	1				1	1	1	1	1			1	0,5
Client/consultant risk attitude compatibility	0,5	1			1				1	0,5	0,5	1	1		0,5	1	0,5
Consultant contact with client organisation	0,5	1	0,5	0,5	1				0,5	0,5		0,5	0,5				0,5
Commonalities of consultant and client		0,5		0,5	0,5	0,5			1		0,5					0,5	
Key factors from the consultant organisation perspective																	
Size of consulting firm	1							1		1	1	0,5	0,5				1
Consultant organisation orientation on certain branches	1								1		0,5					1	
Consultant organisation orientation on certain client organisations and/or consulting contents	1										1					1	
Consultant organisation's willingness to co-operate	1	0,5						1	1	1	0,5	0,5	1			1	
Guidelines	1							1	1	1	1					1	
Enterprise policies	1				1			1	1	1			0,5			1	
Consultant organisation's enterprise culture	1	0,5			1			1	1	1			0,5			1	
Price level of consultant performance	1												0,5			1	
Consultant organisation's environmental conditions	1						1			1	1	1	1	1			1
Economic framework conditions	1						1			1	1	1	1	1			1
Competitive framework conditions	1						1			1	1	1	1	1			1
Legal framework conditions	1						1			1	1	1	1	1			1
Technological framework conditions	1						1			1	1	1	1	1			1
Client perspective																	
Client-individual key factors																	
Client's willingness to learn and co-operate			0,5	1	1			1	1	1	1	1	1			1	
Basic attitude toward consulting			0,5	1	1			1		1	1	1	1			0,5	
Client's personality structure				1	1					1	1		1				
Available capacities			1	1	1			1		1	1	1	1			0,5	
Client's willingness to provide sufficient resources			1	1	1			1		1	1	1	1			1	
Client's consulting capacity				1				1		1	1	0,5	1			1	
Expert knowledge				1				1	1	1	1	0,5	1			1	
Knowlegde and experience to deal with consulting performances				1				1	1	1	1	0,5	1			1	
Client's willingness to trust				1					1		1	1	1			1	
Feedback to consultant				1	0,5	1			1	0,5						0,5	
Co-operation-related client key factors																	
Client's workshare				1	1			1		1	1	1	1			1	
Client's motivation to contribute to consulting success			0,5	1	1			1	1	1	1	0,5	1			0,5	0,5
Client's information-gathering capacity			0,5	1				1	1	1		0,5	1			0,5	
Client's capacity to diagnose and solve problems				1				1	1	1	1	1	1			0,5	
Risk attitude compatibility			0,5	1	1				1	1	0,5	1	1	0,5	0,5	1	0,5
Coinciding focus of perception of consulting objective by both consultant and client			0,5	1		0,5			1	0,5	0,5	0,5	1			0,5	0,5
Consulting process transparency		1		1	1	0,5			1	1		0,5	1			1	
Consultant instruction as to problem situation / expert area		0,5		1	1	0,5			1	1		0,5				0,5	
Key factors from the client organisation perspective																	
Size of client organisation			1							1	1						1
Enterprise age			1								1						1
Enterprise branch			1								1						
Legal form			1								1						1
Property relations			1								1						
Client organisations economic situation			1							1	1	0,5					1
Client organisation potentials			1	0,5	1			1	1	1	0,5	0,5	1		1	1	1
Human capital			1	0,5	1			1		1	0,5		1		1	1	1
Technical know-how			1	0,5	1				1	1	0,5	0,5	1		1	1	1
Financial resources			1		1					1	0,5		1		1	1	1
Project prioritisation			1					0,5	0,5	1		0,5	1		1	1	1
Client enterprise's financial restrictions																1	
Client enterprise's environmental conditions			1				1	1	1	1	1	1	1	1			1
Economic framework conditions			1				1			1	1	1	1	1			1
Competitive framework conditions			1				1	0,5		1	1	1	1	1			1
Legal framework conditions			1				1	0,5	1	1	1	1	1	1			1
Technological framework conditions			1				1	0,5	1	1	1	1	1	1			1
Client organisation's enterprise culture and strategy			1	0,5	1				1	1	0,5		1			1	
Consulting process perspective																	
Project duration	1	1	1	1	1	1		1		1		1	1			1	0,5
Co-operation intensity	1	1	1	1	1	1		0,5	1	1		1	1			1	0,5
Consulting task complexity						1	1	0,5	0,5	1	1	0,5	1			0,5	0,5
Repetition frequency of consulting issue						1											
Structuring degree of consulting problem						1			1	1	1	1	1			1	
Use of standardised consulting methods	0,5	0,5				1		1	1	1	1	0,5	1			1	0,5
Use of standardised consulting tools	0,5	0,5				1		1	1	1	1	0,5	1			1	
Use of electronic media and software	1	1			1												
Project controlling intensity		0,5		0,5	0,5				1	1		1	1			1	
Total	**19,5**	**30,5**	**24,5**	**24,5**	**30**	**14**	**11**	**35**	**50**	**65**	**58**	**39**	**56,5**	**10,5**	**6**	**48,5**	**26**

Annex 5: Adjacency Matrix (Astrological Business Consulting System)

Adjacency Matrix
(Astrological Business Consulting system)

		KF1	KF2	KF3	KF4	KF5	KF6	KF7	KF8	KF9	KF10	KF11	KF12	KF13	KF14	KF15	KF16	KF17	KF18	KF19	KF20	KF21	KF22	KF23	KF24	KF25	KF26	KF27	KF28	KF29	KF30	KF31	KF32	**Active sum**	**Passive sum**
		Consultant's possibility of influence upon problem-solving	Consultant mediacy	Person-related consultant competence	Consultant's personality structure	Consultants experience in consulting	Consultant workshare	Coinciding focus of perception of consulting objective by both consultant and client	Co-operation-related consultant competence	Consultant organisation's willingness to co-operate	Impact of environmental conditions on consultant organisation	Client's willingness to learn and co-operate	Client's consulting capacity	Client's willingness to trust	Client workshare	Client's capacity to provide information	Size of client organisation	Client enterprise potentials	Impact of environmental conditions on client organisation	Client organisation's enterprise culture and strategy	Co-operation intensity	Consulting task complexity	Repetition frequency of consulting issue (of consulting problem)	Structuring degree of consulting problem	Use of standardised consulting methods	Use of standardised consulting tools	Use of electronic media and software	Project controlling intensity	Consultant's consulting potential quality	Client's consulting potential quality	Consultant's consulting process quality	Client's consulting process quality	Consulting result quality		
KF1	Consultant's possibility of influence upon problem-solving		2	2	0	1	2	1	1	0	0	1	0	1	2	2	0	0	0	0	2	0	0	1	2	2	2	2	1	0	1	0	2	**30**	**40**
KF2	Consultant mediacy	2		1	0	1	2	1	1	0	0	1	0	1	1	2	0	0	0	0	1	0	0	0	1	1	1	1	1	0	0	0	2	**21**	**38**
KF3	Person-related consultant competence	2	2		0	1	2	2	3	0	0	1	0	2	1	1	0	0	0	0	1	0	0	2	2	2	2	1	1	0	1	0	2	**31**	**18**
KF4	Consultant's personality structure	0	0	1		0	0	0	1	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	**4**	**2**
KF5	Consultants experience in consulting	2	2	1	1		2	2	3	0	0	3	1	2	1	2	0	0	0	0	2	0	0	2	2	2	2	2	1	0	2	0	2	**39**	**18**
KF6	Consultant workshare	2	2	2	0	3		1	2	0	0	1	0	1	2	1	0	0	0	0	2	0	0	1	1	1	1	1	1	0	1	0	2	**28**	**38**
KF7	Coinciding focus of perception of consulting objective by both consultant and client	0	1	1	0	1	0		1	0	0	1	1	2	1	0	0	0	0	0	2	0	0	0	1	1	1	0	0	0	0	0	3	**17**	**38**
KF8	Co-operation-related consultant competence	2	2	1	1	0	2	2		0	0	2	0	2	2	1	0	0	0	0	3	0	0	2	3	3	3	1	1	0	1	0	2	**36**	**23**
KF9	Consultant organisation's willingness to co-operate	2	1	1	0	0	1	1	1		0	1	0	1	2	1	0	0	0	0	3	0	0	1	1	1	1	1	0	0	1	0	1	**22**	**13**
KF10	Impact of environmental conditions on consultant organisation	1	0	0	0	1	1	1	0	1		0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	**6**	**0**
KF11	Client's willingness to learn and co-operate	2	2	0	0	0	2	2	0	1	0		3	2	2	2	0	1	0	0	2	0	0	1	1	1	1	1	0	1	0	1	2	**30**	**41**
KF12	Client's consulting capacity	1	1	0	0	0	2	2	0	1	0	3		1	1	2	0	1	0	0	1	0	0	1	1	1	1	1	0	2	0	2	1	**26**	**34**
KF13	Client's willingness to trust	2	2	0	0	0	0	2	0	1	0	2	2		0	2	0	0	0	0	2	0	0	0	1	1	1	0	0	0	0	0	1	**19**	**36**
KF14	Client workshare	2	1	0	0	0	2	2	0	1	0	2	3	1		2	0	1	0	0	2	0	0	1	1	1	1	1	0	1	0	1	2	**28**	**38**
KF15	Client's capacity to provide information	2	1	0	0	0	2	2	0	1	0	2	2	1	1		0	0	0	0	2	0	0	0	1	1	1	1	0	1	0	1	2	**24**	**33**
KF16	Size of client organisation	0	0	0	0	0	0	0	0	1	0	2	2	1	2	1		0	0	1	1	0	0	0	1	1	1	0	0	1	0	1	0	**16**	**2**
KF17	Client enterprise potentials	1	2	0	0	0	1	0	0	0	0	2	2	1	2	1	0		0	1	2	1	0	0	1	1	1	1	0	1	0	1	2	**24**	**7**
KF18	Impact of environmental conditions on client organisation	1	1	0	0	0	1	1	0	1	0	2	2	0	1	0	1	2		2	1	1	1	0	0	0	0	0	0	0	0	0	0	**18**	**0**
KF19	Client organisation's enterprise culture and strategy	0	0	0	0	0	1	0	0	1	0	2	2	0	2	1	1	2	0		1	1	0	1	1	1	1	0	0	1	0	1	1	**21**	**4**
KF20	Co-operation intensity	3	2	1	0	1	2	3	2	1	0	2	2	2	2	2	0	0	0	0		1	1	0	0	1	1	1	2	0	0	0	3	**33**	**44**
KF21	Consulting task complexity	2	3	2	0	2	2	2	3	1	0	2	2	2	2	2	0	0	0	0	2		0	3	2	1	2	2	1	1	1	1	2	**45**	**10**
KF22	Repetition frequency of consulting issue (of consulting problem)	2	2	1	0	1	2	1	1	1	0	2	0	2	2	1	0	0	0	0	1	1		0	2	2	2	1	1	1	1	1	2	**33**	**3**
KF23	Structuring degree of consulting problem	2	2	1	0	1	2	2	1	0	0	1	1	2	2	2	0	0	0	0	1	2	0		2	2	2	1	1	1	1	1	2	**35**	**24**
KF24	Use of standardised consulting methods	2	2	1	0	1	2	1	1	0	0	1	2	1	2	1	0	0	0	0	1	1	0	1		2	2	1	0	0	0	0	1	**26**	**37**
KF25	Use of standardised consulting tools	1	1	0	0	1	1	1	0	0	0	1	1	1	2	1	0	0	0	0	1	1	0	1	1		2	1	0	0	1	0	1	**20**	**37**
KF26	Use of electronic media and software	2	2	0	0	1	2	1	0	0	0	1	2	1	2	1	0	0	0	0	2	1	0	1	2	2		1	0	0	1	0	1	**26**	**38**
KF27	Project controlling intensity	0	0	0	0	0	0	1	0	0	0	1	1	1	1	0	0	0	0	0	1	1	0	1	2	2	2		0	0	0	0	2	**16**	**27**
KF28	Consultant's consulting potential quality	1	1	1	0	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0	1	0	0	1	1	1	1	1		0	2	0	1	**17**	**10**
KF29	Client's consulting potential quality	0	0	0	0	0	0	1	0	0	0	1	2	1	0	1	0	0	0	0	1	0	0	1	1	1	1	1	0		0	2	1	**15**	**11**
KF30	Consultant's consulting process quality	1	1	1	0	1	1	1	1	0	0	0	0	1	0	0	0	0	0	0	1	0	0	1	1	1	1	1	1	0		0	1	**16**	**14**
KF31	Client's consulting process quality	0	0	0	0	0	0	1	0	0	0	1	1	1	0	1	0	0	0	0	1	0	1	1	1	1	1	1	0	1	0		1	**14**	**13**
KF32	Consulting result quality	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0		**1**	**45**
Passive sum		**40**	**38**	**18**	**2**	**18**	**38**	**38**	**23**	**13**	**0**	**41**	**34**	**36**	**38**	**33**	**2**	**7**	**0**	**4**	**44**	**10**	**3**	**24**	**37**	**37**	**38**	**27**	**10**	**11**	**14**	**13**	**45**		
Active sum		**30**	**21**	**31**	**4**	**39**	**28**	**17**	**36**	**22**	**6**	**30**	**26**	**19**	**28**	**24**	**16**	**24**	**18**	**21**	**33**	**45**	**33**	**35**	**26**	**20**	**26**	**16**	**17**	**15**	**16**	**14**	**1**		

Annex 6: Role assignation in the Astrological Business Consulting System



Annex 7: Overview of the companies and organisations contacted in the survey

Companies

myConsult Ltd., Germany
Plaut Consulting Ltd., Germany
Avinci Ltd., Germany
Inhouse Consultants of BASF SE, Germany
Steria Mummert Consulting, Germany
A.T. Kearney, Great Britain
Deloitte Consulting, U.S.A.
KPMG, Great Britain
McKinsey & Company, U.S.A.
Roland Berger Strategy Consultants, Germany

Organisations

Bundesverband Deutscher Unternehmensberater BDU eV., Germany
Deutscher Astrologenverband (DAV), Germany
Österreichische Astrologenverband (OEAV), Austria
Schweizer Astrologenbund (SAB), Switzerland
The American Federation of Astrologers (AFA), U.S.A.
The Astrological Association of Great Britain (AA), United Kingdom of Great Britain
The International Society for Astrological Research (ISAR), U.S.A.

Annex 8: Delphi expert survey Part I – covering letter (December 2009)
(Management Consulting system)

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December 2009

Joerg Loosmann
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D-67069 Ludwigshafen

Participant

Delphi expert survey regarding the factors of influence of the management consultation

Ladies and Gentlemen,

In the context of my research studies, that I currently work out at the University of Lincoln (GB), I investigate the factors of influence of the management consultation among other approaches of consultation. The aim of this examination is to find out, whether the factors of influence of the management consultation - as they are presented in the literature - can also be confirmed from practice, or if necessary, are to supplement or to complete. Attending the survey thus offers the possibility of taking influence on the existing understanding of consultation that you can find in the literature.

The questioning aims at experiencing the determinants of the management consultation, also from a view of practice. However, a statement with regard to contents of the management consultation cannot be made from the results.

Upon this background I would like to ask you whether you would see a possibility to support this survey that is designed as an online questioning. It might be helpful to send out the questions to your members via emailing, but accompanied by a few words of introduction from your side. That kind of proceeding would certainly facilitate the return flow to you or to me.

The time needed for filling out the questionnaire takes some 45-60 minutes.

The data obtained from the survey will be used exclusively for research purposes and absolutely anonymously.

I would be grateful to you if you could return the questioning (excel files) filled out for further handling. Looking forward to receiving your positive feedback, I remain,

Yours faithfully,
Joerg Loosmann

Annex 8: Delphi expert survey – Questionnaire Part I
(Management Consulting System)

Survey - Part I – December 2009 Jörg Loosmann

It is **the objective of this first part of the survey** to find out what influences (factors of influence) should be considered relevant in regard of the management consultancy.

In the following, you'll find some suggestions for factors of influence as have been considered relevant for the management consultancy in the literature.

The questions will allow you to qualify these factors of influence, to confirm them or put them into perspective.

All questions below refer to management consulting (comprising the client, the consulting process (as such) and the consultant).

Example:

The way the consultant conducts the consultation (whether solely sharing his expert knowledge or also providing problem-oriented help)

Should be considered as relevant for the quality of consultation	Should be considered as non-relevant for the quality of consultation
X	

Part I:

A. Personal information:

Gender:

male	female

Age:

Between 20 and 40 years	
Between 40 and 60 years	
Over 60 years	

Do you work in consultation?

Yes	No

B. Information regarding the consulting process

1. Consultant's possibility of influence upon problem-solving (example: if the consultant is a mere evaluator he/she will not have as big an influence on the client in the consultation as a consultant acting as a coach).

Should be considered as relevant for the quality of consultation	Should be considered as non-relevant for the quality of consultation

2. Consultant's mode of conducting the consultation (e.g. whether solely sharing his expert knowledge or also providing problem-oriented assistance)

Should be considered as relevant for the quality of consultation	Should be considered as non-relevant for the quality of consultation

3. Personal consulting competence: refers to the consultant's professional expertise, his/her expert knowledge.

Should be considered as relevant for the quality of consultation	Should be considered as non-relevant for the quality of consultation

4. Consultant's personality structure: refers to the consultant's ethical and social competence.

Should be considered as relevant for the quality of consultation	Should be considered as non-relevant for the quality of consultation

5. ……

Annex 8: Delphi expert survey Part I – covering letter (December 2009)
(Astrological Business Consulting system)

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December 2009

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D-67069 Ludwigshafen

Participant

Delphi expert survey regarding the factors of influence of the astrological consultation

Ladies and Gentlemen,

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The questioning aims at experiencing the determinants of the astrological consultation, also from a view of practice. However, a statement with regard to contents of the astrological consultation cannot be made from the results.

Upon this background I would like to ask you whether you would see a possibility to support this survey that is designed as an online questioning. It might be helpful to send out the questions to your members via emailing, but accompanied by a few words of introduction from your side. That kind of proceeding would certainly facilitate the return flow to you or to me.

The time needed for filling out the questionnaire takes some 45-60 minutes.

The data obtained from the survey will be used exclusively for research purposes and absolutely anonymously.

I would be grateful to you if you could return the questioning (excel files) filled out for further handling. Looking forward to receiving your positive feedback, I remain,

Yours faithfully,
Joerg Loosmann

Annex 8: Delphi expert survey – Questionnaire Part I
(Astrological Business Consulting System)

Survey - Part I – December 2009 Jörg Loosmann

It is **the objective of this first part of the survey** to find out what influences (factors of influence) should be considered relevant in regard of the astrological consultation.

In the following, you'll find some suggestions for factors of influence as have been considered relevant for the astrological consultation in the literature.

The questions will allow you to qualify these factors of influence, to confirm them or put them into perspective.

All questions below refer to the astrological consultation (comprising the client, the consulting process (as such) and the consultant).

Example:

The way the consultant conducts the consultation (whether solely sharing his expert knowledge or also providing problem-oriented help)

Should be considered as relevant for the quality of consultation	Should be considered as non-relevant for the quality of consultation
X	

Part I:

A. Personal information:

Gender:

male	female

Age:

Between 20 and 40 years	
Between 40 and 60 years	
Over 60 years	

Do you work in consultation?

Yes	No

B. Information regarding the consulting process

1. Consultant's possibility of influence upon problem-solving (Example: if the consultant is a mere evaluator he/she will not have as big an influence on the client in the consultation as a consultant acting as a coach).

Should be considered as relevant for the quality of consultation	Should be considered as non-relevant for the quality of consultation

2. Consultant's mode of conducting the consultation (e.g. whether solely sharing his expert knowledge or also providing problem-oriented assistance)

Should be considered as relevant for the quality of consultation	Should be considered as non-relevant for the quality of consultation

3. Personal consulting competence: refers to the consultant's professional expertise, his/her expert knowledge.

Should be considered as relevant for the quality of consultation	Should be considered as non-relevant for the quality of consultation

4. Consultant's personality structure: refers to the consultant's ethical and social competence.

Should be considered as relevant for the quality of consultation	Should be considered as non-relevant for the quality of consultation

5. ……

Annex 8: Delphi expert survey Part II – covering letter (February 2010)
(Systems of Management Consulting and Astrological Business Consulting)

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February, 2010

Joerg Loosmann
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Participant

Delphi expert survey regarding the factors of influence and their effects on the quality of astrological consulting and management consulting

Dear participant,

The expert survey below forms part of a scientific investigation. The survey is conducted by Mr. Jörg Loosmann. In case of any questions, please feel free to contact Mr. Loosmann. You find his data in the letterhead.

You were selected as an expert for this survey because of your knowledge and experience. We would like to express our gratitude to you for taking the time to participate.

Your answers will be treated anonymously and in full conformity with the laws of data protection.

The present survey pursues two objectives:

1. Firstly, we want to find out what factors of influence should be considered as relevant for the quality of astrological consultation and management consulting.
2. Secondly, the survey aims at determining the interactions among such factors of influence in regard of the quality of astrological consultation and management consulting.

The results will be used within a scientific investigation and we very pleasantly will make them available to you in detail once the survey has been evaluated.

Before beginning the survey itself, we would like to provide to you some clarifying indications on the annexed questionnaire:

- According to our experience, filling out the present questionnaire will take some 45-60 minutes. Usually the time needed to answer each question significantly decreases as you advance within the survey.
- You'll find a uniform scheme of answering options throughout the entire questionnaire.
- Please relate your appraisals to the whole of your experience and not to any concrete situation when deciding.
- Should you be aware of any other factors of influence regarding the quality of astrological and management consulting, not included in this survey, we would ask you to state them at the end of this questionnaire.

We would, once more, like to emphasise that your answers will be treated anonymously and in full conformity with the laws of data protection. No person-related inferences whatsoever can be made regarding the data of this survey. They serve solely scientific purposes and will be depersonalised for their use. If interested, optionally you may indicate your email address on the questionnaire's final page in order to receive the results of this survey.

Should you have any questions, please contact Mr. Jörg Loosmann at any time (for contact information see above).

We very much appreciate your participation. Thank you!

Jörg Loosmann

Annex 8: Delphi expert survey – Questionnaire Part II
(Management Consulting System)

Survey - Part II – February 2010 Jörg Loosmann

This **second part of the survey** aims at determining the interactions among the factors of influence with regard to the management consultancy. All questions below refer to management consultancy (comprising the client, the consulting process (as such) and the consultant).

Example:

Factor of influence:

The **consultant's mode of conducting the consultation** (e.g. whether solely sharing his expert knowledge or also providing problem-oriented assistance).

What is this factor's influence upon the factors stated below (Table):

	No influence	Light influence	Medium influence	Strong influence
The consultant's possibility of influence upon problem-solving			X	
His/her personal consulting competence (professional competence)	X			
The consultant's personality structure (e.g. ethical and social competence)	X			
The consultant's consulting experience (e.g. empathy, experience with instruments)			X	
The consultant's work share		X		
The coinciding focus of perception of the consulting objective by both the consultant and the client		X		
His/her cooperation-related consulting competence (e.g. the consultant's problem-solving skills, his/her ability to furnish information and his/her methodical competence)	X			
The consultant's readiness to cooperate with his/her client	X			
The impact of environmental factors upon the consultant (e.g. laws, competition, economic situation)			X	
The intensity of cooperation between consultant and client			X	
The client's readiness to learn and cooperate	X			
The client's quality of proceeding in the consulting job		X		
.....				

Question 1:

Factor of influence: **The consultant's possibility of influence upon problem-solving.**
What is this factor's influence upon the factors stated below (Table):

	No influence	Light influence	Medium influence	Strong influence
The consultant's mode of conducting the consultation (e.g. whether solely sharing his expert knowledge or also providing problem-oriented assistance)				
His/her personal consulting competence (professional competence)				
The consultant's personality structure (e.g. ethical and social competence)				
The consultant's consulting experience (e.g. empathy, experience with instruments)				
The consultant's work share				
The coinciding focus of perception of the consulting objective by both the consultant and the client				
His/her cooperation-related consulting competence (e.g. the consultant's problem-solving skills, his/her ability to furnish information and his/her methodical competence)				
The consultant's readiness to cooperate with his/her client				
The impact of environmental factors upon the consultant (e.g. laws, competition, economic situation)				
The client's readiness to learn and cooperate				
The client's consulting capacity (the client's capacity to receive advice)				
The client's readiness to trust				
The client's work share in consultation				
The client's ability to furnish information				
The client's social status, his/her economic importance				
The client's potentials				
The impact of environmental factors upon the client (e.g. laws, competition, economic situation))				
The client's company culture and strategy (customer organization)				
The intensity of cooperation between consultant and client				
The complexity of the consulting issue				
The repetition frequency of the consulting issue				
The structuring degree of the consulting issue				
The application of standardized consulting methods (how do I advise?)				
The application of standardized consulting instruments (with what means?)				
The use of electronic media and software				
The intensity of consulting documentation				
The consultant's quality of preparation for the consulting job				
The client's quality of preparation for the consulting job				
The consultant's quality of proceeding in the consulting job				
The client's quality of proceeding in the consulting job				
The quality of the consulting result				

Question 2: ……..

Annex 8: Delphi expert survey – Questionnaire Part II
(Astrological Business Consulting System)

Survey - Part II – February 2010 Jörg Loosmann

This **second part of the survey** aims at determining the interactions among the factors of influence with regard to the astrological consultation. All questions below refer to the astrological consultation (comprising the client, the consulting process (as such) and the consultant).

Example:

Factor of influence: The **consultant's mode of conducting the consultation** (e.g. whether solely sharing his expert knowledge or also providing problem-oriented assistance).

What is this factor's influence upon the factors stated below (Table):

	No influence	Light influence	Medium influence	Strong influence
The consultant's possibility of influence upon problem-solving			X	
His/her personal consulting competence (professional competence)	X			
The consultant's personality structure (e.g. ethical and social competence)	X			
The consultant's consulting experience (e.g. empathy, experience with instruments)			X	
The consultant's work share		X		
The coinciding focus of perception of the consulting objective by both the consultant and the client		X		
His/her cooperation-related consulting competence (e.g. the consultant's problem-solving skills, his/her ability to furnish information and his/her methodical competence)	X			
The consultant's readiness to cooperate with his/her client	X			
The impact of environmental factors upon the consultant (e.g. laws, competition, economic situation)			X	
The intensity of cooperation between consultant and client			X	
The client's readiness to learn and cooperate	X			
The client's quality of proceeding in the consulting job		X		
…				

Question 1:

Factor of influence: **The consultant's possibility of influence upon problem-solving.**
What is this factor's influence upon the factors stated below (Table):

	No influence	Light influence	Medium influence	Strong influence
The consultant's mode of conducting the consultation (e.g. whether solely sharing his expert knowledge or also providing problem-oriented assistance)				
His/her personal consulting competence (professional competence)				
The consultant's personality structure (e.g. ethical and social competence)				
The consultant's consulting experience (e.g. empathy, experience with instruments)				
The consultant's work share				
The coinciding focus of perception of the consulting objective by both the consultant and the client				
His/her cooperation-related consulting competence (e.g. the consultant's problem-solving skills, his/her ability to furnish information and his/her methodical competence)				
The consultant's readiness to cooperate with his/her client				
The impact of environmental factors upon the consultant (e.g. laws, competition, economic situation)				
The client's readiness to learn and cooperate				
The client's consulting capacity (the client's capacity to receive advice)				
The client's readiness to trust				
The client's work share in consultation				
The client's ability to furnish information				
The client's social status, his/her economic importance				
The client's potentials				
The impact of environmental factors upon the client (e.g. laws, competition, economic situation))				
The client's company culture and strategy (customer organization)				
The intensity of cooperation between consultant and client				
The complexity of the consulting issue				
The repetition frequency of the consulting issue				
The structuring degree of the consulting issue				
The application of standardized consulting methods (how do I advise?)				
The application of standardized consulting instruments (with what means?)				
The use of electronic media and software				
The intensity of consulting documentation				
The consultant's quality of preparation for the consulting job				
The client's quality of preparation for the consulting job				
The consultant's quality of proceeding in the consulting job				
The client's quality of proceeding in the consulting job				
The quality of the consulting result				

Question 2: ……..

Annex 9: Management Consulting system: findings regarding Part I of the expert survey

Survey Part I (Management Consulting system)
Findings regarding the key factor's system-relevance
- statistically calculated indicators -

group	statement	Key factor 1		Key factor 2		Key factor 3		Key factor 4		Key factor 5	
		absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	5	63%	7	88%	6	75%	6	75%	8	100%
	Should be considered as non-relevant for the quality of management consultation	3	38%	1	13%	2	25%	2	25%	0	0%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	7	50%	6	43%	12	86%	12	86%	11	79%
	Should be considered as non-relevant for the quality of management consultation	7	50%	8	57%	2	14%	2	14%	3	21%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**12**	**55%**	**13**	**59%**	**18**	**82%**	**18**	**82%**	**19**	**86%**
	Should be considered as non-relevant for the quality of management consultation	**10**	**45%**	**9**	**41%**	**4**	**18%**	**4**	**18%**	**3**	**14%**

group	statement	Key factor 6		Key factor 7		Key factor 8		Key factor 9		Key factor 10	
		absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	7	88%	7	88%	8	100%	8	100%	8	100%
	Should be considered as non-relevant for the quality of management consultation	1	13%	1	13%	0	0%	0	0%	0	0%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	9	64%	12	86%	12	86%	11	79%	13	93%
	Should be considered as non-relevant for the quality of management consultation	5	36%	2	14%	2	14%	3	21%	1	7%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**16**	**73%**	**19**	**86%**	**20**	**91%**	**19**	**86%**	**21**	**95%**
	Should be considered as non-relevant for the quality of management consultation	**6**	**27%**	**3**	**14%**	**2**	**9%**	**3**	**14%**	**1**	**5%**

Annex 9: Management Consulting system: findings regarding Part I of the expert survey

Survey Part I (Management Consulting system)
Findings regarding the key factor's system-relevance
- statistically calculated indicators -

group	statement	Key factor 11 absolute mode m_n	Key factor 11 relative mode m_p	Key factor 12 absolute mode m_n	Key factor 12 relative mode m_p	Key factor 13 absolute mode m_n	Key factor 13 relative mode m_p	Key factor 14 absolute mode m_n	Key factor 14 relative mode m_p	Key factor 15 absolute mode m_n	Key factor 15 relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	7	88%	7	88%	7	88%	6	75%	8	100%
	Should be considered as non-relevant for the quality of management consultation	1	13%	1	13%	1	13%	2	25%	0	0%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	8	57%	8	57%	9	64%	9	64%	10	71%
	Should be considered as non-relevant for the quality of management consultation	6	43%	6	43%	5	36%	5	36%	4	29%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**15**	**68%**	**15**	**68%**	**16**	**73%**	**15**	**68%**	**18**	**82%**
	Should be considered as non-relevant for the quality of management consultation	**7**	**32%**	**7**	**32%**	**6**	**27%**	**7**	**32%**	**4**	**18%**

group	statement	Key factor 16 absolute mode m_n	Key factor 16 relative mode m_p	Key factor 17 absolute mode m_n	Key factor 17 relative mode m_p	Key factor 18 absolute mode m_n	Key factor 18 relative mode m_p	Key factor 19 absolute mode m_n	Key factor 19 relative mode m_p	Key factor 20 absolute mode m_n	Key factor 20 relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	6	75%	7	88%	7	88%	6	75%	8	100%
	Should be considered as non-relevant for the quality of management consultation	2	25%	1	13%	1	13%	2	25%	0	0%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	6	43%	8	57%	9	64%	8	57%	12	86%
	Should be considered as non-relevant for the quality of management consultation	8	57%	6	43%	5	36%	6	43%	2	14%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**12**	**55%**	**15**	**68%**	**16**	**73%**	**14**	**64%**	**20**	**91%**
	Should be considered as non-relevant for the quality of management consultation	**10**	**45%**	**7**	**32%**	**6**	**27%**	**8**	**36%**	**2**	**9%**

Annex 9: Management Consulting system: findings regarding Part I of the expert survey

Survey Part I (Management Consulting system)
Findings regarding the key factor's system-relevance
- statistically calculated indicators -

		Key factor 21		Key factor 22		Key factor 23		Key factor 24		Key factor 25	
group	statement	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	6	75%	7	88%	6	75%	7	88%	7	88%
	Should be considered as non-relevant for the quality of management consultation	2	25%	1	13%	2	25%	1	13%	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	11	79%	9	64%	8	57%	8	57%	8	57%
	Should be considered as non-relevant for the quality of management consultation	3	21%	5	36%	6	43%	6	43%	6	43%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**17**	**77%**	**16**	**73%**	**14**	**64%**	**15**	**68%**	**15**	**68%**
	Should be considered as non-relevant for the quality of management consultation	**5**	**23%**	**6**	**27%**	**8**	**36%**	**7**	**32%**	**7**	**32%**

		Key factor 26		Key factor 27		Key factor 28		Key factor 29		Key factor 30	
group	statement	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	8	100%	7	88%	7	88%	6	75%	7	88%
	Should be considered as non-relevant for the quality of management consultation	0	0%	1	13%	1	13%	2	25%	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	8	57%	5	36%	9	64%	7	50%	9	64%
	Should be considered as non-relevant for the quality of management consultation	6	43%	9	64%	5	36%	7	50%	5	36%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**16**	**73%**	**12**	**55%**	**16**	**73%**	**13**	**59%**	**16**	**73%**
	Should be considered as non-relevant for the quality of management consultation	**6**	**27%**	**10**	**45%**	**6**	**27%**	**9**	**41%**	**6**	**27%**

		Key factor 31		Key factor 32		Key factor A		Key factor B	
group	statement	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	6	75%	8	100%	8	100%	7	88%
	Should be considered as non-relevant for the quality of management consultation	2	25%	0	0%	0	0%	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	7	50%	10	71%	8	57%	13	93%
	Should be considered as non-relevant for the quality of management consultation	7	50%	4	29%	6	43%	1	7%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**13**	**59%**	**18**	**82%**	**16**	**73%**	**20**	**91%**
	Should be considered as non-relevant for the quality of management consultation	**9**	**41%**	**4**	**18%**	**6**	**27%**	**2**	**9%**

Annex 10: Astrological Business Consulting system: findings regarding Part I of the expert survey

Survey Part I (Astrological Business Consulting system)
Findings regarding the key factor's system-relevance
- statistically calculated indicators -

		Key factor 1		Key factor 2		Key factor 3		Key factor 4		Key factor 5	
group	statement	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	5	63%	7	88%	6	75%	7	88%	8	100%
	Should be considered as non-relevant for the quality of management consultation	3	38%	1	13%	2	25%	1	13%	0	0%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	7	50%	2	14%	13	93%	11	79%	11	79%
	Should be considered as non-relevant for the quality of management consultation	7	50%	12	86%	1	7%	3	21%	3	21%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**12**	**55%**	**9**	**41%**	**19**	**86%**	**18**	**82%**	**19**	**86%**
	Should be considered as non-relevant for the quality of management consultation	**10**	**45%**	**13**	**59%**	**3**	**14%**	**4**	**18%**	**3**	**14%**

		Key factor 6		Key factor 7		Key factor 8		Key factor 9		Key factor 10	
group	statement	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	7	88%	7	88%	8	100%	6	75%	6	75%
	Should be considered as non-relevant for the quality of management consultation	1	13%	1	13%	0	0%	2	25%	2	25%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	8	57%	12	86%	12	86%	9	64%	8	57%
	Should be considered as non-relevant for the quality of management consultation	6	43%	2	14%	2	14%	5	36%	6	43%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**15**	**68%**	**19**	**86%**	**20**	**91%**	**15**	**68%**	**14**	**64%**
	Should be considered as non-relevant for the quality of management consultation	**7**	**32%**	**3**	**14%**	**2**	**9%**	**7**	**32%**	**8**	**36%**

Annex 10: Astrological Business Consulting system: findings regarding Part I of the expert survey

Survey Part I (Astrological Business Consulting system)
Findings regarding the key factor's system-relevance
- statistically calculated indicators -

group	statement	Key factor 11 absolute mode m_n	Key factor 11 relative mode m_p	Key factor 12 absolute mode m_n	Key factor 12 relative mode m_p	Key factor 13 absolute mode m_n	Key factor 13 relative mode m_p	Key factor 14 absolute mode m_n	Key factor 14 relative mode m_p	Key factor 15 absolute mode m_n	Key factor 15 relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	7	88%	7	88%	7	88%	6	75%	6	75%
	Should be considered as non-relevant for the quality of management consultation	1	13%	1	13%	1	13%	2	25%	2	25%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	6	43%	6	43%	13	93%	7	50%	10	71%
	Should be considered as non-relevant for the quality of management consultation	8	57%	8	57%	1	7%	7	50%	4	29%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**13**	**59%**	**13**	**59%**	**20**	**91%**	**13**	**59%**	**16**	**73%**
	Should be considered as non-relevant for the quality of management consultation	**9**	**41%**	**9**	**41%**	**2**	**9%**	**9**	**41%**	**6**	**27%**

group	statement	Key factor 16 absolute mode m_n	Key factor 16 relative mode m_p	Key factor 17 absolute mode m_n	Key factor 17 relative mode m_p	Key factor 18 absolute mode m_n	Key factor 18 relative mode m_p	Key factor 19 absolute mode m_n	Key factor 19 relative mode m_p	Key factor 20 absolute mode m_n	Key factor 20 relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	6	75%	7	88%	7	88%	6	75%	8	100%
	Should be considered as non-relevant for the quality of management consultation	2	25%	1	13%	1	13%	2	25%	0	0%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	2	14%	7	50%	8	57%	7	50%	12	86%
	Should be considered as non-relevant for the quality of management consultation	12	86%	7	50%	6	43%	7	50%	2	14%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**8**	**36%**	**14**	**64%**	**15**	**68%**	**13**	**59%**	**20**	**91%**
	Should be considered as non-relevant for the quality of management consultation	**14**	**64%**	**8**	**36%**	**7**	**32%**	**9**	**41%**	**2**	**9%**

Annex 10: Astrological Business Consulting system: findings regarding Part I of the expert survey

Survey Part I (Astrological Business Consulting system)
Findings regarding the key factor's system-relevance
- statistically calculated indicators -

		Key factor 21		Key factor 22		Key factor 23		Key factor 24		Key factor 25	
group	statement	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	6	75%	5	63%	6	75%	7	88%	6	75%
	Should be considered as non-relevant for the quality of management consultation	2	25%	3	38%	2	25%	1	13%	2	25%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	10	71%	8	57%	8	57%	7	50%	7	50%
	Should be considered as non-relevant for the quality of management consultation	4	29%	6	43%	6	43%	7	50%	7	50%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**16**	**73%**	**13**	**59%**	**14**	**64%**	**14**	**64%**	**13**	**59%**
	Should be considered as non-relevant for the quality of management consultation	**6**	**27%**	**9**	**41%**	**8**	**36%**	**8**	**36%**	**9**	**41%**

		Key factor 26		Key factor 27		Key factor 28		Key factor 29		Key factor 30	
group	statement	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	6	75%	7	88%	6	75%	6	75%	7	88%
	Should be considered as non-relevant for the quality of management consultation	2	25%	1	13%	2	25%	2	25%	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	8	57%	3	21%	11	79%	7	50%	9	64%
	Should be considered as non-relevant for the quality of management consultation	6	43%	11	79%	3	21%	7	50%	5	36%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**14**	**64%**	**10**	**45%**	**17**	**77%**	**13**	**59%**	**16**	**73%**
	Should be considered as non-relevant for the quality of management consultation	**8**	**36%**	**12**	**55%**	**5**	**23%**	**9**	**41%**	**6**	**27%**

		Key factor 31		Key factor 32		Key factor A		Key factor B	
group	statement	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p	absolute mode m_n	relative mode m_p
management consultants (n=8)	Should be considered as relevant for the quality of management consulting	6	75%	8	100%	8	100%	7	88%
	Should be considered as non-relevant for the quality of management consultation	2	25%	0	0%	0	0%	1	13%
astrological consultants (n=14)	Should be considered as relevant for the quality of management consulting	7	50%	12	86%	1	7%	13	93%
	Should be considered as non-relevant for the quality of management consultation	7	50%	2	14%	13	93%	1	7%
consultants n = 22	Should be considered as relevant for the quality of management consulting	**13**	**59%**	**20**	**91%**	**9**	**41%**	**20**	**91%**
	Should be considered as non-relevant for the quality of management consultation	**9**	**41%**	**2**	**9%**	**13**	**59%**	**2**	**9%**

Annex 11: Management Consulting system: findings regarding Part II of the expert survey (key factor's influence on other key factors)

Key factor's influence on		KF 1					KF 2					KF 3					KF 4					KF 5					KF 6					KF 7					KF 8					KF 9					KF 10					KF 20					KF A				
		Consultant's possibility of influencing the problem-solving					Consultant's mode of conducting the consultation					Person-related consultant competence					Consultant's personality structure					Consultant's experience in consulting					Consultant workshare					Coinciding focus of perception of consulting objective by both consultant and client					Co-operation-related consultant competence					Consultant organisation's willingness to co-operate					Impact of environmental conditions on consultant organisation					Co-operation intensity					Homogeneity of the consultants' team				
		No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF1)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF2)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF3)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF4)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF5)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF6)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF7)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF8)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF9)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF10)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KF20)	No influence	Light influence	Medium influence	Strong influence	Indicator of influence (KFA)
		Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes				
KF1	Consultant's possibility of influencing						-	1	3	18	3	-	3	16	3	2	1	19	2	-	1	1	5	15	1	2	-	3	18	1	2	-	4	15	3	2	-	2	19	1	2	-	2	17	3	2	3	19	-	-	1	-	1	2	19	3	18	4	-	-	0
KF2	Consultant's mode of conducting the consultation	1	1	6	14	3						-	3	12	7	2	2	17	3	-	1	-	1	17	4	2	2	2	17	1	2	1	3	17	1	2	-	2	18	2	2	-	1	18	3	2	19	3	-	-	0	-	-	20	2	2	2	19	1	-	1
KF3	Person-related consultant competence	-	1	18	3	2	-	2	18	2	2						2	2	18	-	2	2	6	14	-	2	1	4	17	-	2	2	18	2	-	1	3	16	3	-	1	2	20	-	-	1	18	3	1	-	0	3	18	1	-	1	18	4	-	-	0
KF4	Consultant's personality structure	3	15	4	-	1	2	17	3	-	1	-	3	18	1	2						2	16	4	-	1	18	3	1	-	0	19	3	-	-	0	3	16	3	-	1	3	17	2	-	1	3	18	1	-	1	5	15	2	-	1	20	2	-	-	0
KF5	Consultant's experience in consulting	-	2	19	1	2	2	1	18	1	2	-	-	20	2	2	3	17	2	-	1						-	5	15	2	2	-	2	15	5	2	3	18	1		1	16	3	2	1	0	4	16	2	-	1	-	18	3	1	1	19	3	-	-	0
KF6	Consultant workshare	2	3	17		2	3	6	13		2	3	3	15	1	2	19	1	2	-	0	1	3	18	-	2						2	19	1	-	1	-	3	17	2	2	-	3	17	2	2	3	19	-	-	1	-	3	16	3	2	3	19	-	-	1
KF7	Coinciding focus of perception of consulting objective by both	1	3	15	3	2	-	1	20	1	2	5	14	3	-	1	3	17	2	-	1	2	16	4	-	1	4	14	3	1	1										-	3	15	4	2	4	15	3	-	1	2	20	-	-	1	-	-	17	5	2	3	19	-	-	1
KF8	Co-operation-related consultant competence	-	1	20	1	2	-	2	18	2	2	3	17	2	-	1	3	15	4	-	1	4	14	4	-	1	-	2	18	2	2	-	2	17	3	2						5	17	-	-	1	2	20	-	-	1	-	18	4	-	1	3	19	-	-	1
KF9	Consultant organisation's willingness	-	4	16	2	2	-	1	19	2	2	-	18	4	-	1	3	14	5	-	1	21	1	-	-	0	-	3	17	2	2	3	17	2	-	1	5	14	3	-	1						2	20	-	-	1	-	-	-	4	2	-	4	18	-	2
KF10	Impact of environmental conditions on consultant	1	20	1	-	1	17	1	4	-	0	20	2	-	-	0	4	17	1	-	1	8	14	-	-	1	8	14	-	-	1	3	17	2	-	1	3	17	2	-	1	2	20	-	-	1						19	3	-	-	0	18	4	-	-	0
KF11	Client's willingness to learn and co-operate	-	20	2	-	1	-	1	20	1	2	4	16	2	-	1	3	2	17	-	2	2	5	14	1	2	8	13	1	-	1	-	3	16	3	2	19	3	-	-	0	2	20	-	-	1	20	1	1	-	0	-	-	17	5	2	18	4	-	-	0
KF12	Client's consulting capacity	-	20	1	1	1	1	19	1	1	1	2	3	12	5	2	1	3	18		2	1	4	17	-	2	1	4	17	-	2	-	4	15	3	2	19	3	-	-	0	2	20	-	-	1	4	18	-	-	1	-	2	16	4	2	18	4	-	-	0
KF13	Client's willingness to trust	-		22		2	2	3	16	1	2		1	19	2	2		3	4	15	3	3	7	12	-	2	4	15	3	-	1	-	1	17	4	2	3	18	1	-	1	-	2	17	3	2	19	3	-	-	0	-	-	19	3	2	18	4	-	-	0
KF14	Client workshare	-	2	19	1	2	3	4	15	-	2	17	2	3	-	0	3	3	16	-	2	8	14	-	-	1	-	5	15	2	2	-	5	15	2	2	19	3	-	-	0	3	19	-	-	1	19	3	-	-	0	-	-	19	3	2	18	4	-	-	0
KF15	Client's capacity to provide information	-	1	20	1	2	2	17	3	-	1	18	4	-	-	0	3	19	-	-	1	15	4	3	-	0	-	3	14	5	2	-	1	19	2	2	16	4	2	-	0	3	19	-	-	1	19	3	-	-	0	-	-	19	3	2	18	4	-	-	0
KF16	Size of client organisation	1	20	1	-	1	20	2		-	0	20	2	-	-	0	19	3	-	-	0	20	2	-	-	0	5	16	1	-	1	5	17	-	-	1	2	18	2	-	1	6	16	-	-	1	19	3	-	-	0	20	2	-	-	0	18	4	-	-	0
KF17	Client enterprise potentials	1	19	2	-	1	3	5	14	-	2	2	1	19	-	2	2	17	3	-	1	20	2	-	-	0	2	18	2	-	1	7	15	-	-	1	3	18	1	-	1	19	3	-	-	0	19	3	-	-	0	4	16	2	-	1	18	4	-	-	0
KF18	Impact of environmental conditions	-	19	3	-	1	7	14	1	-	1	4	16	2	-	1	20	2	-	-	0	20	2	-	-	0	2	18	2	-	1	2	20	-	-	1	20	2	-	-	0	3	19	-	-	1	19	3	-	-	0	3	19	-	-	1	18	4	-	-	0
KF19	Client organisation's enterprise culture	-	15	4	3	1	20	1	1	-	0	20	1	1	-	0	19	3	-	-	0	20	2	-	-	0	2	15	5	-	1	1	21	-	-	1	3	19	-	-	1	2	20	-	-	1	19	3	-	-	0	-	1	16	5	2	18	4	-	-	0
KF20	Co-operation intensity	-	3	18	1	3	-	-	17	5	2	1	20	1	-	1	2	16	4	-	1	3	15	4	-	1	-	3	17	2	2	-	1	17	4	2	5	17	-	-	1	-	2	19	1	2	19	3	-	-	0						-	3	17	2	2
KF21	Consulting task complexity	-	1	2	19	2	3	15	4		1	3	4	15	-	2	20	1	1	-	0	3	5	14	-	2	-	-	3	19	3	-	2	16	4	2	-	-	19	3	2	3	18	1	-	1	19	3	-	-	0	4	18	-	-	1	19	3	-	-	0
KF22	Repetition frequency of consulting issue (of consulting problem)	2	2	17	1	2	-	3	17	2	2	20	2	-	-	0	21	1	-	-	0	-	3	19	-	2	-	3	17	2	2	-	3	18	1	2	3	18	1	-	1	2	19	1	-	1	19	3	-	-	0	4	18	-	-	1	19	3	-	-	0
KF23	Structuring degree of consulting problem	1	3	18	-	2	-	2	18	2	2	5	14	3	-	1	20	2	-	-	0	2	19	1	-	1	-	4	15	3	2	-	1	18	3	2	2	18	2	-	1	2	20	-	-	1	19	3	-	-	0	-	3	19	-	2	19	3	-	-	0
KF24	Use of standardised consulting methods	2	3	17	-	2	4	2	16	-	2	4	18	-	-	1	20	2	-	-	0	2	19	1	-	1	-	3	16	3	2	3	17	2	-	1	1	5	16	-	2	3	-	19	-	2	19	3	-	-	0	-	18	4	-	1	4	18	-	-	1
KF25	Use of standardised consulting tools	2	2	18	-	2	2	2	18	-	2	19	3	-	-	0	20	2	-	-	0	2	19	1	-	1	3	15	4	-	1	1	20	1	-	1	3	19	-	-	1	2	20	-	-	1	19	3	-	-	0	-	18	4	-	1	4	18	-	-	1
KF26	Use of electronic media and software	2	2	18	-	2		20	2	-	1	19	3	-	-	0	19	3	-	-	0	2	19	1	-	1	3	15	4	-	1	1	20	1	-	1	3	19	-	-	1	2	20	-	-	1	19	3	-	-	0	-	18	4	-	1	4	18	-	-	1
KF27	Project controlling intensity	6	16		-	1	19	2	1	-	0	21	1	-	-	0	21	1	-	-	0	20	2	-	-	0	1	17	4	-	1	6	16	-	-	1	3	19	-	-	1	2	20	-	-	1	19	3	-	-	0	2	20	-	-	1	4	18	-	-	1
KF28	Consultant's consulting potential quality	-	2	20	-	2	3	1	1	17	3	-	3	17	2	2	20	2	-	-	0	20	2	-	-	0	4	7	11	-	2	-	3	19	-	2	2	3	17	-	2	2	20	-	-	1	4	18	-	-	1	2	20	-	-	1	-	2	17	3	2
KF29	Client's consulting potential quality	-	20	-	2	1	-	1	1	20	3	20	2	-	-	0	20	2	-	-	0	20	2	-	-	0	3	19	-	-	1	-	3	19	-	2	2	20	-	-	1	2	20	-	-	1	4	18	-	-	1	2	20	-	-	1	21	1	-	-	0
KF30	Consultant's consulting process quality	-	20	2	-	1	-	1	1	20	3	-	3	18	1	2	20	2	-	-	0	20	2	-	-	0	3	19	-	-	1	-	3	19	-	2	2	20	-	-	1	2	20	-	-	1	4	18	-	-	1	2	20	-	-	1	-	1	20	1	2
KF31	Client's consulting process quality	-	20	2	-	1	-	1	1	20	3	16	6	-	-	0	20	2	-	-	0	20	2	-	-	0	3	19	-	-	1	-	3	19	-	2	2	20	-	-	1	2	20	-	-	1	4	18	-	-	1	2	20	-	-	1	20	2	-	-	0
KF32	Consulting result quality	-	20	2	-	1	-	2	4	16	3	19	3	-	-	0	1	20	1		1	2	2	18	-	2	3	15	4	-	1	3	18	1	-	1	2	19	1	-	1	2	20	-	-	1	20	2	-	-	0	1	21	-	-	1	-	1	19	2	2
KF A	Homogeneity of the consultants' team	-	2	18	2	2	3	18	1		1	21	1	-	-	0	19	3	-	-	0	18	4	-	-	0	3	18	1	-	1	21	1	-	-	0	3	18	1	-	1	17	4	1	-	0	17	5	-	-	0	3	18	1	-	1					
KF B	Client's feedback	8	12	2	-	1	-	2	18	2	2	-	4	15	3	2	3	17	2	-	1	5	15	2	-	1	7	12	3	-	1	4	14	4	-	1	12	7	3	-	0	14	7	1	-	0	17	5	-	-	0	1	4	15	2	2	18	4	-	-	0
Passive sum						**54**					**57**					**32**					**23**					**31**					**48**					**48**					**34**					**35**					**12**					**45**					**18**

Annex 12: Astrological Business Consulting system: findings regarding Part II of the expert survey (key factor's influence on other key factors)

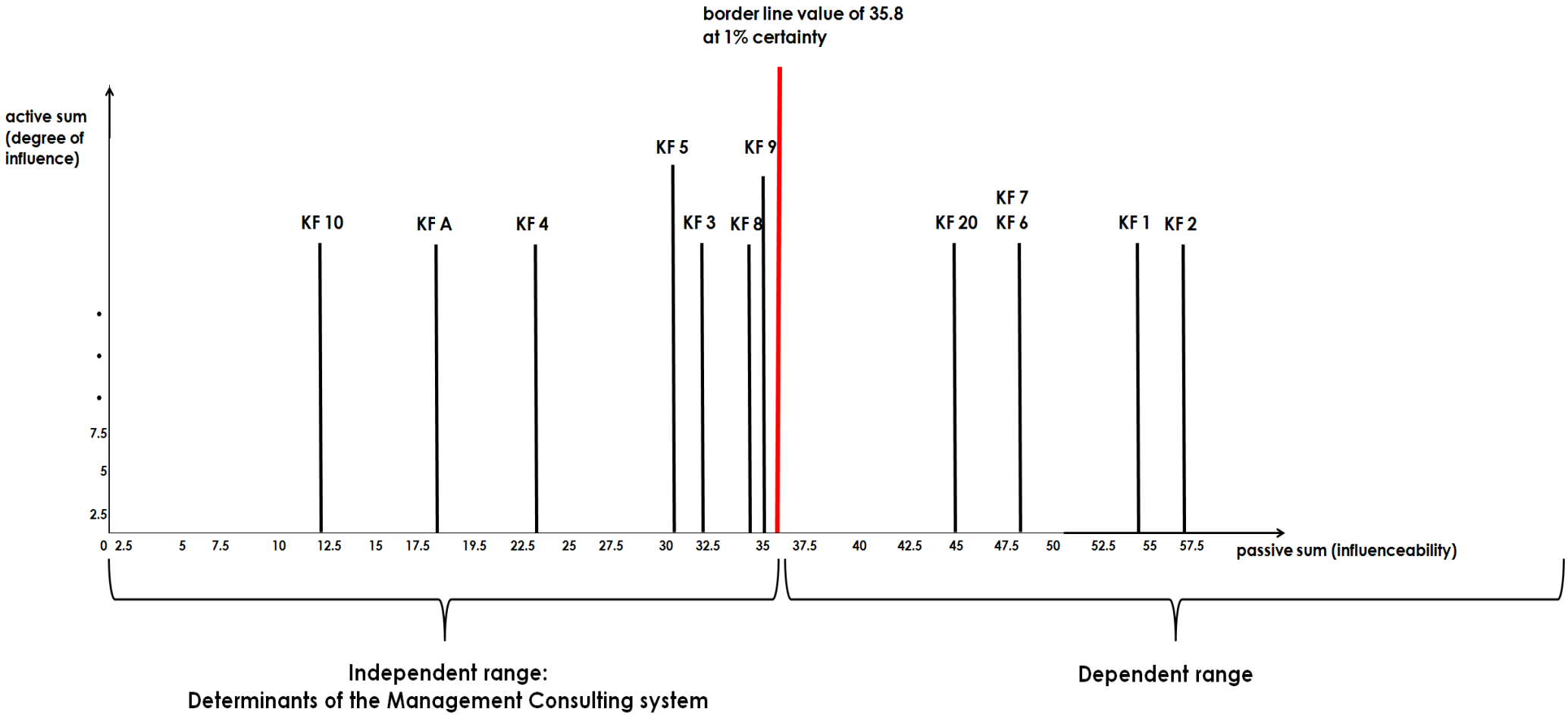
Key factor's influence on		KF 1					KF 3					KF 4					KF 5					KF 6					KF 7					KF 8					KF 9					KF 10					KF 20				
		Consultant's possibility of influencing the problem-solving					Person-related consultant competence					Consultant's personality structure					Consultant's experience in consulting					Consultant workshare					Coinciding focus of perception of consulting objective by both consultant and client					Co-operation-related consultant competence					Consultant organisation's willingness to co-operate					Impact of environmental conditions on consultant organisation					Co-operation intensity				
		No influence	Ligh influence	Medium influence	Strong influence	Indicator of influence (KF1)	No influence	Ligh influence	Medium influence	Strong influence	Indicator of influence (KF3)	No influence	Ligh influence	Medium influence	Strong influence	Indicator of influence (KF4)	No influence	Ligh influence	Medium influence	Strong influence	Indicator of influence (KF5)	No influence	Ligh influence	Medium influence	Strong influence	Indicator of influence (KF6)	No influence	Ligh influence	Medium influence	Strong influence	Indicator of influence (KF7)	No influence	Ligh influence	Medium influence	Strong influence	Indicator of influence (KF8)	No influence	Ligh influence	Medium influence	Strong influence	Indicator of influence (KF9)	No influence	Ligh influence	Medium influence	Strong influence	Indicator of influence (KF10)	No influence	Ligh influence	Medium influence	Strong influence	Indicator of influence (KF20)
		Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes					Number of votes				
KF1	Consultant's possibility of influencing the problem-solving						4	15	3	-	1	1	4	15	2	2	-	1	3	18	3	5	2	3	12	3	-	3	6	13	3	4	15	3	-	1	17	4	1	-	0	20	2	-	-	0	-	3	18	1	2
KF2	Consultant's mode of conducting the consultation																																																	
KF3	Person-related consultant competence	-	3	16	3	2						15	3	3	1	0	5	15	2	-	1	4	7	11	-	2	-	5	15	2	2	-	4	6	12	3	17	5	-	-	0	20	2	-	-	0	1	16	5	-	1
KF4	Consultant's personality structure	15	6	1	-	0	16	6	-	-	0						12	7	3	-	0	18	3	1	-	0	18	4	-	-	0	15	6	1	-	0	-	5	17	-	2	22	-	-	-	0	18	4	-	-	0
KF5	Consultant's experience in consulting	-	3	17	2	2	4	13	5	-	1	2	16	2	2	1						-	4	8	10	3	1	4	15	2	2	-	-	13	9	2	-	3	15	4	2	21	1	-	-	0	18	4	-	-	0
KF6	Consultant workshare	-	4	16	2	2	2	5	15	-	2	5	16	1	-	1	-	4	6	12	3						1	5	16	-	2	-	8	13	1	2	-	7	15	-	2	20	2	-	-	0	-	4	16	2	2
KF7	Coinciding focus of perception of consulting objective by both consultant and client	-	5	17	-	2	14	5	3	-	0	9	12	1	-	1	3	15	3	1	1	14	7	1	-	0						-	9	12	1	2	-	6	7	9	3	19	3	-	-	0	-	9	13	-	2
KF8	Co-operation-related consultant competence	-	4	16	2	2	5	16	1	-	1	2	2	14	4	2	1	4	17	-	2	4	7	10	1	2	-	5	16	1	2						-	3	5	14	3	19	3	-	-	0	-	3	17	2	2
KF9	Consultant organisation's willingness to co-operate	-	3	18	1	2	3	17	2	-	1	8	12	2	-	1	-	5	7	10	3	2	8	12	-	2	1	8	13	-	2	7	12	3	-	1						21	1	-	-	0	-	1	2	19	3
KF10	Impact of environmental conditions on consultant organisation	18	4	-	-	0	18	3	1	-	0	17	4	1	-	0	3	18	1	-	1	19	3	-	-	0	18	3	1	-	0	20	2	-	-	0	19	3	-	-	0						17	5	-	-	0
KF11	Client's willingness to learn and co-operate	1	4	17	-	2	6	13	3	-	1	8	12	2	-	1	18	4	-	-	0	6	13	3	-	1	-	4	17	1	2	18	4	-	-	0	-	7	15	-	2	19	2	1	-	0	-	4	16	2	2
KF12	Client's consulting capacity	6	14	2	-	1	12	8	1	1	0	18	4	-	-	0	16	4	2	-	0	3	15	4	-	1	-	6	16	-	2	15	6	1	-	0	-	19	3	-	1	18	4	-	-	0	-	1	18	3	2
KF13	Client's willingness to trust	2	6	14	-	2	6	15	1	-	1	9	11	2	-	1	13	6	3	-	0	17	5	-	-	0	-	5	16	1	2	16	5	1	-	0	-	6	15	1	2	19	3	-	-	0	-	1	18	3	2
KF14	Client workshare	-	4	17	1	2	5	14	3	-	1	3	18	1	-	1	2	7	13	-	2	-	4	15	3	2	1	8	13	-	2	7	15	-	-	1	-	8	14	-	2	20	2	-	-	0	-	6	16	-	2
KF15	Client's capacity to provide information	1	4	16	1	2	1	18	3	-	1	10	12	-	-	1	15	3	4	-	0	-	6	14	2	2	1	5	16	-	2	18	4	-	-	0	-	5	14	3	2	19	3	-	-	0	-	5	17	-	2
KF16	Size of client organisation																																																	
KF17	Client enterprise potentials	9	12	1	-	1	17	3	2	-	0	10	12	-	-	1	19	3	-	-	0	-	8	13	1	2	17	4	1	-	0	20	2	-	-	0	17	5	-	-	0	18	4	-	-	0	1	6	15	-	2
KF18	Impact of environmental conditions on client organisation	18	2	2	-	0	20	2	-	-	0	20	2	-	-	0	20	2	-	-	0	20	2	-	-	0	19	3	-	-	0	20	2	-	-	0	21	1	-	-	0	19	3	-	-	0	20	2	-	-	0
KF19	Client organisation's enterprise culture and strategy	14	7	1	-	0	18	3	1	-	0	21	1	-	-	0	22	-	-	-	0	18	4	-	-	0	17	4	1	-	0	19	3	-	-	0	19	3	-	-	0	21	1	-	-	0	-	5	17	-	2
KF20	Co-operation intensity	-	1	2	19	3	3	17	2	-	1	4	16	2	-	1	2	4	14	2	2	1	4	16	1	2	-	2	7	13	3	-	1	7	14	3	2	4	15	1	2	19	3	-	-	0					
KF21	Consulting task complexity	-	3	16	3	2	1	3	17	1	2	15	7	-	-	0	1	6	11	4	2	-	1	9	12	3	-	6	15	1	2	3	12	7	-	1	7	15	-	-	1	20	2	-	-	0	18	4	-	-	0
KF22	Repetition frequency of consulting issue (of consulting problem)	1	3	18	-	2	1	19	2	-	1	9	12	1	-	1	8	12	2	-	1	7	12	3	-	1	3	14	5	-	1	4	14	4	-	1	10	12	-	-	1	21	1	-	-	0	19	3	-	-	0
KF23	Structuring degree of consulting problem	3	3	16	-	2	3	14	4	1	1	18	2	2	-	0	3	14	5	-	1	-	5	13	4	2	-	5	15	2	2	4	14	4	-	1	17	5	-	-	0	20	2	-	-	0	19	3	-	-	0
KF24	Use of standardised consulting methods	5	7	10	-	2	7	14	1	-	1	19	2	1	-	0	7	14	1	-	1	1	6	13	2	2	16	4	2	-	0	3	15	4	-	1	18	4	-	-	0	20	2	-	-	0	5	7	10	-	2
KF25	Use of standardised consulting tools	6	15	1	-	1	7	14	1	-	1	18	2	2	-	0	2	7	13	-	2	2	11	9	-	1	13	7	2	-	0	18	4	-	-	0	18	4	-	-	0	21	1	-	-	0	3	7	12	-	2
KF26	Use of electronic media and software	16	4	2	-	0	17	4	1	-	0	15	7	-	-	0	8	14	-	-	1	1	8	12	-	2	13	8	1	-	0	16	6	-	-	0	18	4	-	-	0	21	1	-	-	0	19	3	-	-	0
KF27	Project controlling intensity																																																
KF28	Consultant's consulting potential quality	-	2	8	12	3	7	13	2	-	1	2	2	15	3	2	-	2	4	16	3	7	13	2	-	1	14	5	3	-	0	-	3	3	16	3	16	5	1	-	0	17	5	-	-	0	2	16	4	-	1
KF29	Client's consulting potential quality	16	5	1	-	0	4	15	3	-	1	17	4	1	-	0	5	14	3	-	1	16	3	3	-	0	17	4	1	-	0	17	4	1	-	0	18	4	-	-	0	17	5	-	-	0	5	17	-	-	1
KF30	Consultant's consulting process quality	-	4	6	12	3	1	2	5	14	3	-	2	15	5	2	-	1	8	13	3	-	7	14	1	2	15	6	1	-	0	-	4	14	4	2	16	6	-	-	0	15	7	-	-	0	2	16	4	-	1
KF31	Client's consulting process quality	-	4	12	6	2	1	6	11	4	2	3	16	3	-	1	1	3	15	3	2	18	3	1	-	0	17	4	1	-	0	15	5	2	-	0	18	4	-	-	0	-	9	13	-	2	5	17	-	-	1
KF32	Consulting result quality	-	2	4	16	3	1	1	5	15	3	-	5	14	3	2	-	3	5	14	3	16	4	2	-	0	-	2	7	13	3	-	1	4	17	3	19	3	-	-	0	15	7	-	-	0	-	2	5	15	3
KF 8	Client's feedback	-	2	7	13	3		4	15	3	2	1	12	9	-	1	3	11	7	1	1	6	13	3	-	1		2	13	7	2	-	1	8	13	3	-	2	15	5	2	13	9	-	-	0	-	1	9	12	3
Passive sum						**48**					**29**					**23**					**39**					**37**					**36**					**30**					**27**					**2**					**40**

Annex 13: Adjacency Matrix (Management Consulting System) - statistically determined survey indicators

Adjacency Matrix (Management Consulting system)
Indicators regarding the mutual influence intensities between the individual key factors of the Management Consultant subsystem and that of the Management Consulting system

		KF1	KF2	KF3	KF4	KF5	KF6	KF7	KF8	KF9	KF10	KF20	KF A
		Consultant's possibility of influencing the problem-solving	Consultant's mode of conducting the consultation	Person-related consultant competence	Consultant's personality structure	Consultant's experience in consulting	Consultant workshare	Coinciding focus of perception of consulting objective by both consultant and client	Co-operation-related consultant competence	Consultant organisation's willingness to co-operate	Impact of environmental conditions on consultant organisation	Co-operation intensity	Homogeneity of the consultants' team
KF1	Consultant's possibility of influencing the problem-solving		3	2	1	2	2	2	2	2	1	3	0
KF2	Consultant's mode of conducting the consultation	3		2	1	2	2	2	2	2	0	2	1
KF3	Person-related consultant competence	2	2		2	2	2	1	1	1	0	1	0
KF4	Consultant's personality structure	1	1	2		1	0	1	1	1	1	1	0
KF5	Consultant's experience in consulting	2	2	2	1		2	1	1	0	1	1	0
KF6	Consultant workshare	2	2	2	0	2		1	2	2	1	2	1
KF7	Coinciding focus of perception of consulting objective by both consultant and client	2	2	1	1	1	1		2	1	1	2	1
KF8	Co-operation-related consultant competence	2	2	1	1	1	2	2		1	1	1	1
KF9	Consultant organisation's willingness to co-operate	2	2	1	1	0	2	1	1		1	2	2
KF10	Impact of environmental conditions on consultant organisation	1	0	0	1	1	1	1	1	1		0	0
KF11	Client's willingness to learn and co-operate	1	2	1	2	2	1	2	0	1	0	2	0
KF12	Client's consulting capacity	1	1	2	2	2	2	2	0	1	1	2	0
KF13	Client's willingness to trust	2	2	2	3	2	1	2	1	2	0	2	0
KF14	Client workshare	2	2	0	2	1	2	2	0	1	0	2	0
KF15	Client's capacity to provide information	2	1	0	1	0	2	2	0	1	0	2	0
KF16	Size of client organisation	1	0	0	0	0	1	1	1	1	0	0	0
KF17	Client enterprise potentials	1	2	2	1	0	1	1	1	0	0	1	0
KF18	Impact of environmental conditions on client organisation	1	1	1	0	0	1	1	0	1	0	1	0
KF19	Client organisation's enterprise culture and strategy	1	0	0	0	0	1	1	1	1	0	2	0
KF20	Co-operation intensity	3	2	1	1	1	2	2	1	2	0		2
KF21	Consulting task complexity	2	1	2	0	2	3	2	2	1	0	1	0
KF22	Repetition frequency of consulting issue (of consulting problem)	2	2	0	0	2	2	2	1	1	0	1	0
KF23	Structuring degree of consulting problem	2	2	1	0	1	2	2	1	1	0	2	0
KF24	Use of standardised consulting methods	2	2	1	0	1	2	1	2	2	0	1	1
KF25	Use of standardised consulting tools	2	2	0	0	1	1	1	1	1	0	1	1
KF26	Use of electronic media and software	2	1	0	0	1	1	1	1	1	0	1	1
KF27	Project controlling intensity	1	0	0	0	0	1	1	1	1	0	1	1
KF28	Consultant's consulting potential quality	2	3	2	0	0	2	2	2	1	1	1	2
KF29	Client's consulting potential quality	1	3	0	0	0	1	2	1	1	1	1	0
KF30	Consultant's consulting process quality	1	3	2	0	0	1	2	1	1	1	1	2
KF31	Client's consulting process quality	1	3	0	0	0	1	2	1	1	1	1	0
KF32	Consulting result quality	1	3	0	1	2	1	1	1	1	0	1	2
KF A	Homogeneity of the consultants' team	2	1	0	0	0	1	0	1	0	0	1	
KF B	Client's feedback	1	2	2	1	1	1	1	0	0	0	2	0
passive sum		**54**	**57**	**32**	**23**	**31**	**48**	**48**	**34**	**35**	**12**	**45**	**18**

Annex 13: Role assignation in the Management Consulting system after the empirical validation

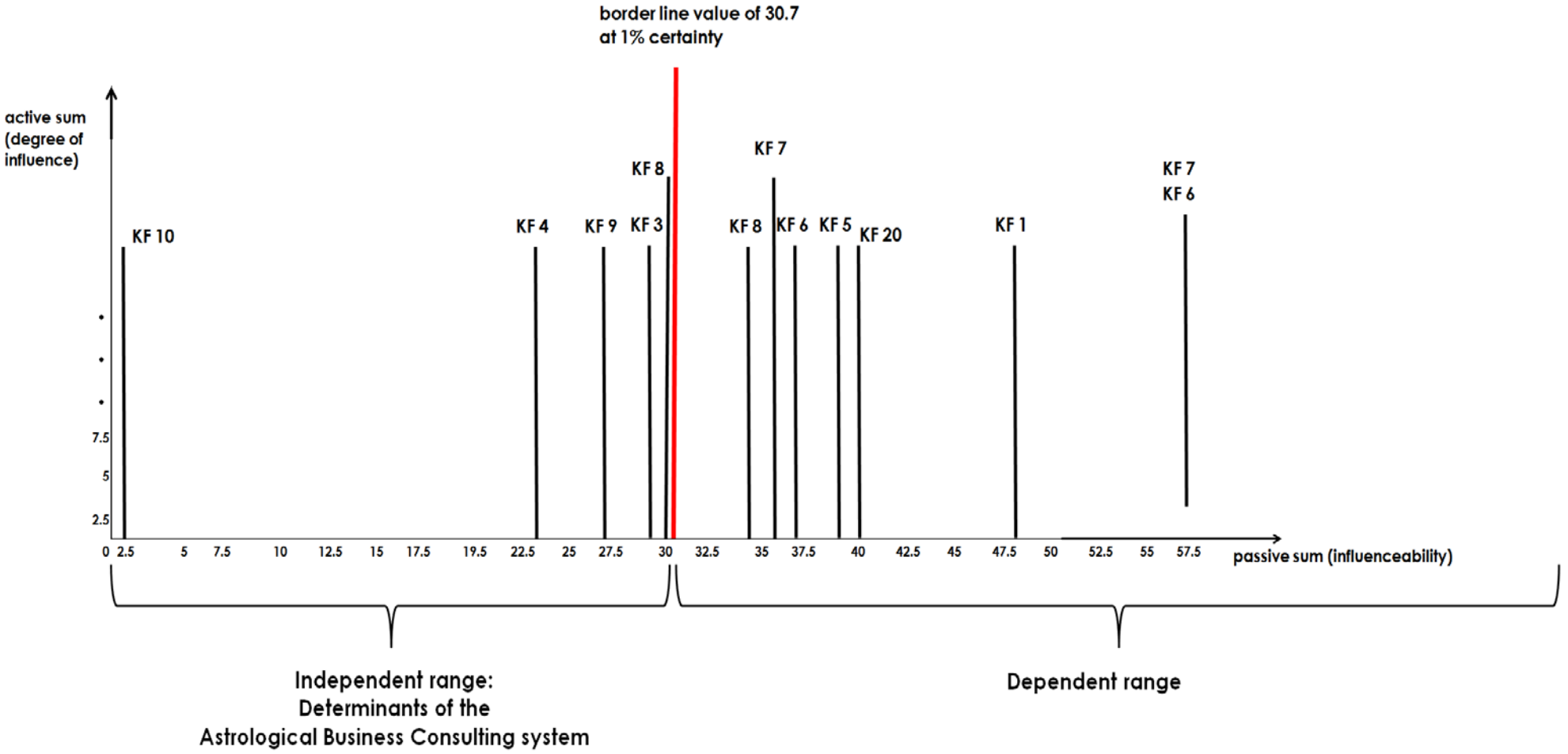


Annex 14: Adjacency Matrix (Astrological Business Consulting System) - statistically determined survey indicators

Adjacency Matrix
(Astrological Business Consulting system)
Indicators regarding the mutual influence intensities between the individual key factors of the Astrological Business Consultant subsystem and that of the Astrological Business Consulting system

		KF1	KF2	KF3	KF4	KF5	KF6	KF7	KF8	KF9	KF10	KF20
		Consultant's possibility of influencing the problem-solving	Consultant's mode of conducting the consultation	Person-related consultant competence	Consultant's personality structure	Consultants experience in consulting	Consultant workshare	Coinciding focus of perception of consulting objective by both consultant and client	Co-operation-related consultant competence	-Consultant organisation's willingness to co operate	Impact of environmental conditions on consultant organisation	Co-operation intensity
KF1	Consultant's possibility of influencing the problem-solving			1	2	3	3	3	1	0	0	2
KF2	Consultant's mode of conducting the consultation											
KF3	Person-related consultant competence	2			0	1	2	2	3	0	0	1
KF4	Consultant's personality structure	0		0		0	0	0	0	2	0	0
KF5	Consultant's experience in consulting	2		1	1		3	2	2	2	0	0
KF6	Consultant workshare	2		2	1	3		2	2	2	0	2
KF7	Coinciding focus of perception of consulting objective by both consultant and client	2		0	1	1	0		2	3	0	2
KF8	Co-operation-related consultant competence	2		1	2	2	2	2		3	0	2
KF9	Consultant organisation's willingness to co-operate	2		1	1	3	2	2	1		0	3
KF10	Impact of environmental conditions on consultant organisation	0		0	0	1	0	0	0	0		0
KF11	Client's willingness to learn and co-operate	2		1	1	0	1	2	0	2	0	2
KF12	Client's consulting capacity	1		0	0	0	1	2	0	1	0	2
KF13	Client's willingness to trust	2		1	1	0	0	2	0	2	0	2
KF14	Client workshare	2		1	1	2	2	2	1	2	0	2
KF15	Client's capacity to provide information	2		1	1	0	2	2	0	2	0	2
KF16	Size of client organisation											
KF17	Client enterprise potentials	1		0	1	0	2	0	0	0	0	2
KF18	Impact of environmental conditions on client organisation	0		0	0	0	0	0	0	0	0	0
KF19	Client organisation's enterprise culture and strategy	0		0	0	0	0	0	0	0	0	2
KF20	Co-operation intensity	3		1	1	2	2	3	3	2	0	
KF21	Consulting task complexity	2		2	0	2	3	2	1	1	0	0
KF22	Repetition frequency of consulting issue (of consulting problem)	2		1	1	1	1	1	1	1	0	0
KF23	Structuring degree of consulting problem	2		1	0	1	2	2	1	0	0	0
KF24	Use of standardised consulting methods	2		1	0	1	2	0	1	0	0	2
KF25	Use of standardised consulting tools	1		1	0	2	1	0	0	0	0	2
KF26	Use of electronic media and software	0		0	0	1	2	0	0	0	0	0
KF27	Project controlling intensity											
KF28	Consultant's consulting potential quality	3		1	2	3	1	0	3	0	0	1
KF29	Client's consulting potential quality	0		1	0	1	0	0	0	0	0	1
KF30	Consultant's consulting process quality	3		3	2	3	2	0	2	0	0	1
KF31	Client's consulting process quality	2		2	1	2	0	0	0	0	2	1
KF32	Consulting result quality	3		3	2	3	0	3	3	0	0	3
KF B	Client's feedback	3		2	1	1	1	2	3	2	0	3
Passive sum		**48**	**0**	**29**	**23**	**39**	**37**	**36**	**30**	**27**	**2**	**40**

Annex 14: Role assignation in the Astrological Business Consulting system after the empirical validation



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